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The American Journal of Clinical Medicine

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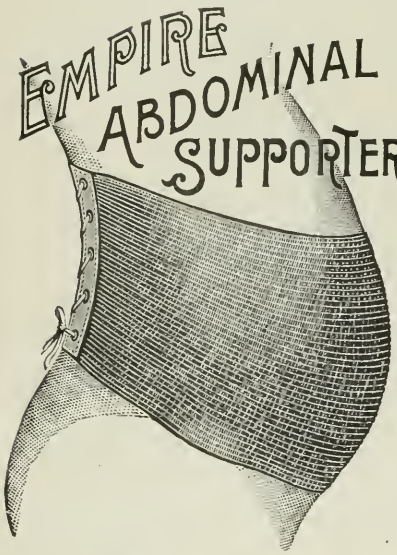

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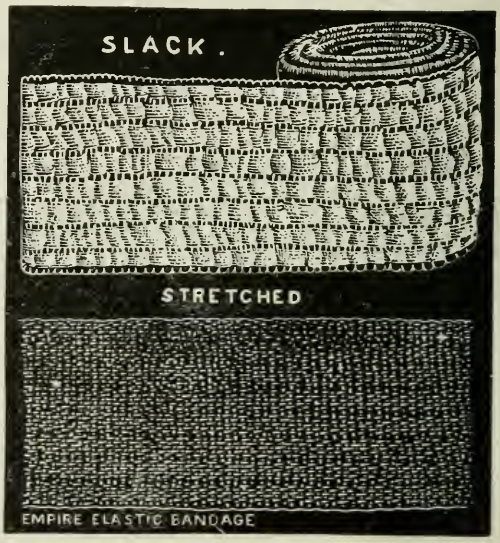

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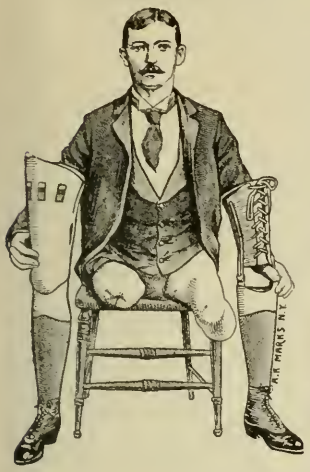

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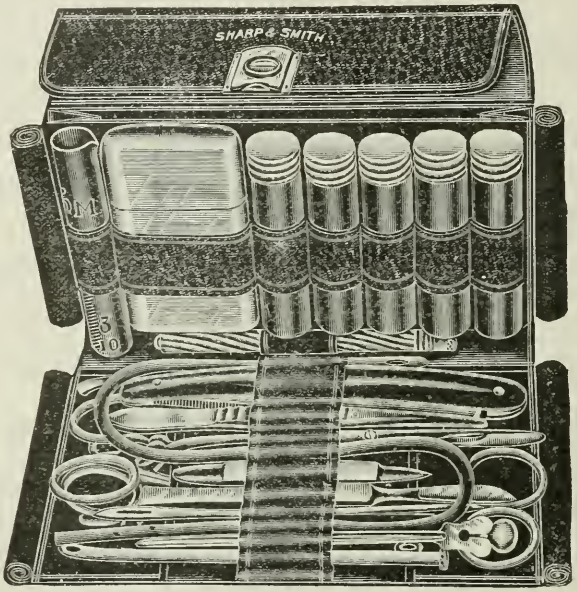

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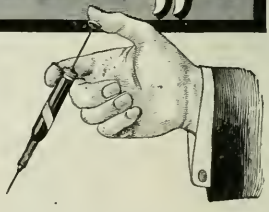

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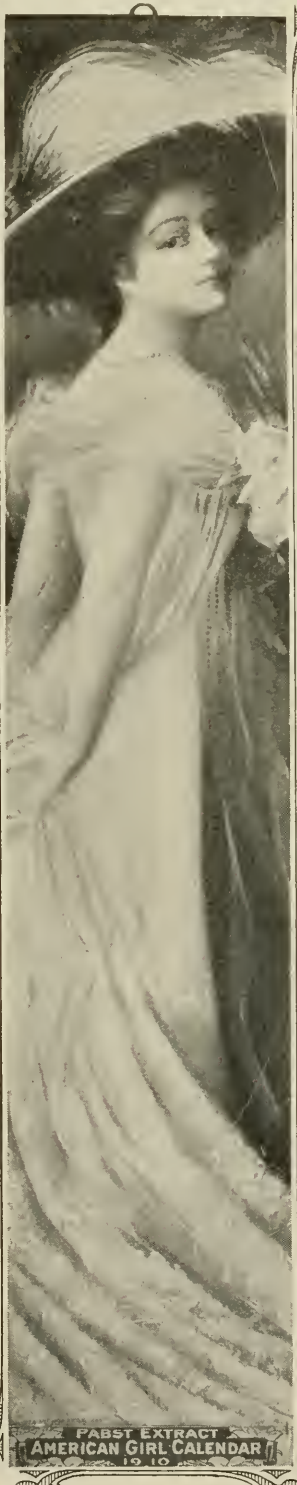

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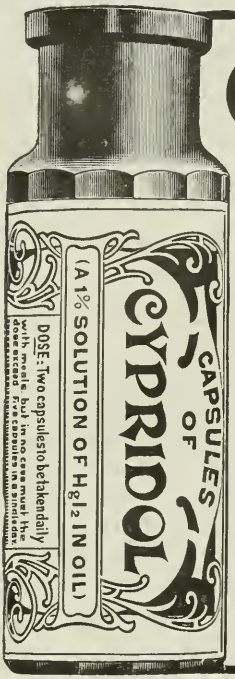

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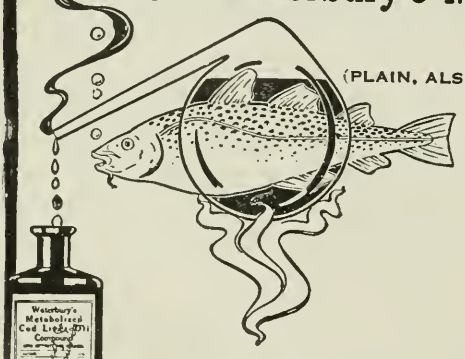

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The American Journal of Clinical Medicine

Vol. 16 DECEMBER, 1909 No. 12

Jealousy Among Physicians

There is no bar to progress in our profession so great as mutual distrust and jealousy. If we would accomplish much we should "get together" and work together, in every community, and as a class

A SCHOLAR once remarked that a man's culture might be estimated by the attention he gave the study of Shakespeare. While this expressed the views of one who had become a one-book worshiper, there is a measure of truth in his claim, in so far as the study of this great genius brings with it an insight into the ways and workings of the human mind that no other affords. This profound knowledge of humanity is what renders Shakespeare always true, never obsolete. Man changes his outer semblance, his mental dress, but at heart he changes not. The Proverbs of Solomon and the Maxims of Ani apply to the human being of the twentieth century, and they also applied to the pre-Adamite.

Take that wonderful portrayal of the darkest of passions, jealousy, as given in Othello. Note the first insinuation of doubt into his previously confiding mind—but this is unnecessary, for the disposition to jealousy inheres in the man by virtue of his manhood, and the heredity of the eons when might was the only law and the possession of the woman pertained to him who could tumble the weaker down from the tree-nest into the jaws of the waiting carnivora on the surface. The thought of deception comes like a whisper of some waiting demon; it is indignantly rejected, but returns; insensibly the man becomes a watcher; every trifle that seems to confirm the idea is seized upon; all that goes against it is ignored. Doubt grows on its chosen food and becomes conviction. The thin edge of the wedge once inserted, the rift follows and the friendship of a lifetime is disrupted. Well it is if no such appalling tragedy as the Moor's follows.

A breath of the cold air of common sense blows in, and the whole card house of suspicion and baseless inference falls to the ground; but the disaster has been worked, and never again is the old confidence to be restored. The sense of undeserved suspicion, of misjudgment by one who had every reason to feel the fullest confidence in the loyalty of his friend is ever present to prevent the resumption of the old relations.

One might infer that the actor who depicts these passions as his lifework would take the same view as the reader and see clearly the tremendous mistake the jealous one is perpetrating; but is this the case? Two actors formed a partnership, and achieved notable success. For years they were welcomed by throngs of delighted patrons. Then they married, and the Damon and Pythias friendship of years came to an end. Each wife began to see that *her* husband was the attraction, and the other man was making money out of *her* man's brains. The wives pulled them apart, and each took the road with a play of his own. Both received the favor of the public, about alike, and it became evident that each was a sufficient attraction to fill the houses. The breach was never healed.

Of course we each know that this does not apply to *us*. *We* see clearly the absurdity of Othello's jealousy, and the possibility that we should be such fools is never so much as suspected. Are you sure? Ever been tempted? No? Then don't talk.

Visiting a small country town we conversed with each of its physicians separately. Each had a grievous tale to tell of the unprofessional and malpractitional doings of the rest. Finally one seemed to realize the absurdity of the thing and burst out with—"I know this is all wrong, but they all knock each other, and if I don't do it too I fall out of the going."

Perhaps; but why don't these men realize that in this way they are hurting each other and the whole profession; for the public is sure to believe some of the detraction of each, and all are alike harmed. It is easy to say mean things of the other fellow, and somebody will believe you; but he can say them of you likewise, and somebody else will believe him too.

A soft answer turneth away wrath, and it is beyond human possibility for any man to abuse persistently another who speaks only good of him. After all, the essential thing is to stop thinking evil of our fellows, to become better acquainted with one another, and to act as co-workers for the common good of our glorious guild. Moral? There isn't any!

Thank God for life, in such an age as this,
Rich with the promises of better things.
Thank God for being part of this great Nation's heart
Whose strong pulsations are not ruled by kings.

Our thanks for love, and knowledge of God's laws;
Love is a greater power than vested might.
Love is the central source of all enduring force;
Love is the law that sets the whole world right.

Our thanks for that increasing torch of light
The tireless hand of science holds abroad.
And may its glowing blaze shine on all hidden ways
Till man beholds the silhouette of God.

—Ella Wheeler Wilcox.

THE QUALITY OF DRUGS

In *The Physician's Drug News* for October there appears an editorial which is well worth the careful consideration of all practising physicians. The editor quotes Mr. Shafer, Drug Inspector of the State of Ohio, as follows:

"During the past year it has been my privilege to call upon a large number of the physicians of this State, and my observations have led me to the conclusion that there are several different grades of them. One class, and I am glad to say the largest one, are striving faithfully to enlarge the sphere of knowledge of surgery, materia medica and practice, and I desire to congratulate them upon their manifested interest along these lines. Then, again, as in pharmacy, there is a class who have no ambition to elevate their professional standing, no desire to fit themselves for greater usefulness along professional lines, and apparently indifferent as to the character of the medicinal agents dispensed by them to their patients.

"The first class of physicians, as a rule, are careful and conscientious in their purchases; they do not buy from junk-shop supply houses, and their shelves are filled with products from standard pharmaceutical manufacturers; yet I am led to believe that even some of these houses who sell direct to our physicians are not as particular as they should be as to the grade of the products which they supply."

The article then goes on to tell of fluid extracts which were found to have been made with wood-alcohol instead of grain-alcohol. Dr. Shafer obtained from one physician 8 different makes of morphine tablets, all of which proved to contain 20 to 40 percent less morphine than stated on the label. One contained less than 20 percent of the morphine indicated on the label. "The 'don't-care' physician buys only from those houses who give the largest quantity for the least money."

Tablets of Dover's powder which should have contained 2 1-2 grains had not sufficient opium to make an estimate of the quantity.

It seems incredible that physicians who buy drugs for their own dispensing purposes should be so careless as to suffer themselves to be imposed on in this way. We can only attribute it to the prevalent pessimistic view that drugs are of little account anyhow, and that it does not make much difference what you get provided you secure the proper suggestive effect.

As long as physicians labor under this delusion, anything like scientific application of drugs is practically impossible. In this case, why buy any drugs at all? Water is really cheap, and a little sugar, salt, vinegar, carmine, offer the opportunity to vary appearance and taste. You might just as well save the drug bills altogether if you don't believe in medicine.

But the quality of drugs dispensed by druggists is by no means always good. The same journal, a page further on, states that on examination of 220 samples of tincture of iodine, Dr. Wood, Director of the Maine Laboratory, showed that only 4 percent were of standard strength. And yet tincture of iodine is not a difficult article to prepare. Some tinctures were made with wood-alcohol. In CLINICAL MEDICINE for June we described the enormous variation in the strength of tincture of aconite, as actually dispensed in Chicago drugstores, of four specimens no two being alike and one only ne sixteenth the full strength.

The Food Commissioners of North Data state that 85 percent of 60 samples of rit of camphor were below the standard. Of 28 samples of ammonia water 7 were of full strength, while of 22 samples of spirit of nitrous ether only 2 conformed to the requirements of the U. S. P. The North Dakota druggist, however, proves to be acquainted with wood-alcohol, since traces were found in several of the tinctures.

It is plain enough to any thinking man that both doctor and druggist have too much at stake to take any chances with things which are merely "cheap." Results mean too much, not only to those who take the medicine, but to those who order it. The demon of avarice sometimes beguiles men to buy as cheaply as possible; but this demon is one which makes its appeal to doctors and druggists alike—those of a certain undesirable kind. Human nature does not change much with a man's profession.

Our druggist friends who would legislate the dispensing doctor out of business will do better for themselves and pharmacy if they first combat the ignorance, carelessness and wrong-doing in their own profession. Doctors everywhere will fight for the right to dispense their own remedies, but they will stand ever with those seeking to raise the standard of quality of all remedial agents.

A wise man will make more opportunities than he finds.—Bacon.

CONGRATULATIONS FOR NORBURY

We note by the public press that Dr. Frank P. Norbury of Jacksonville, Illinois, has received the appointment of Physician-in-Chief to the Kankakee Asylum. This is an appointment which confers honor on those who made it. Dr. Norbury is a man whose ability attracted the attention of those in the profession best qualified to judge when he first came to this state. His subsequent career has fully justified the expectations held of him, and it can not but be a source of pleasure to every friend of the demented to know that a man of his efficiency is placed in charge. We look with confidence for results of more than usual value to come from his work there. The only fear is that Dr. Norbury, whose bodily

strength is not equal to his mental activity, may overwork himself in that most trying occupation, with regrettable results. The writer knows something of the calls upon his mentality and his nervous and vital forces necessitated by the treatment of large numbers of insane persons. There seems no limit to the number of things that can happen in an insane asylum, and the responsibility for these cases weighs heavily upon the sensitive nature of the man who is best calculated to do such work justice.

Never forget that it's those seemingly superfluous efforts that count; the work that you do for the love of working, not what you do within working hours and merely because you are paid for it.

—Gushman K. Davis.

BOOKS AND READING

The man who does not read stands still. The busy world never stands still, consequently the bookless man falls behind and becomes obsolete, out of place. But since of the making of books there is no end, the question of what to read is a perplexing one. If a physician, especially a beginner, he should read everything at all accessible on the cases under treatment. It is surprising to find how much edifying matter one may encounter on even the commonest diseases if persistently followed up. This will give such a doctor a special proficiency in the newest and best information available concerning that particular case; and as the physician is judged by his patients on his knowledge of the case before him, they usually give him credit for an equal fund of information on other professional topics as well.

Besides this, one should always have on hand some advance reading. Naturally it should be along the line in which one is most interested. If one has not already taken up a specialty he should, in his spare time, consider seriously the question of emergencies, taking up every emergency that is liable to arise in his practice as a physician and prepare himself beforehand to recognize it quickly and to act on the moment. This is an exceedingly valuable line of study.

Following this, if he is engaged in any specialty, he will naturally secure the new books in this direction as they come out. If he is in general practice, he is especially obliged to let no good thing escape. For a physician in general practice we believe that no books offer so many valuable bits of information as those on the active-principle work, the textbooks on "Therapeutics" and on "Practice." They are success-builders, both professionally and financially; works that should be read carefully from cover to cover, and then placed within easy access for reference from day to day. We are safe in asserting that no books in the doctor's library will grow old so quickly, that is, in appearance, because no others will be referred to so frequently by those who are familiar with their contents.

Then there are the journals. We assume that every physician in active practice takes The American Journal of Clinical Medicine. If he does, we know that he reads it. But we do not claim it to be the only journal for the active practician. We believe every doctor ought to take his local journal. More than that, he ought to support it by his contributions. The profession of any vicinity is judged not by the articles it supplies to the great metropolitan periodicals, but by those that appear in its local journal. Hence it is to his interest to support his home journal, and if he does not consider it as good as it should be, to ask himself if it is not partly his own fault for not contributing his very best material to improve its quality.

We find the man himself is judged to a certain extent by his support of the journal. For if a man whose name is known for the good work he has done in the profession, if his name does not appear in his local journal, people ask whether he is not one of those quarrelsome fellows who do not get along with their associates. If a man is out with the other physicians of his locality, it does not speak well for him; and if his name does not appear in the contributions to his local journal, people are likely to infer that he has either a grouch on hand or else that those among whom he lives, and who presumably

know him, are not inclined to give space to his literary productions. One cannot dissociate his interests from those of his community. Hence, doctor, support your local journal.

THE TYPHOID FLY

In *The Texas State Journal of Medicine*, Dr. Lincecum contributes a paper on "The C mmon House-Fly as a Carrier of Disease." He adverts to the conditions favoring the multiplication of flies, especially the exposure of human and animal excreta about the premises, which, he points out, offer the most favorable opportunities for the development of the fly and of which it never fails to take advantage.

"They," says Dr. Lincecum, "have two incubators always kept in trim for their convenience, namely, a filthy privy and the barn in which horses are kept. The flies swarm in the vessel before it is emptied, then walk over the excreta on the ground where it is carelessly emptied, their feet and bodies become smeared with infectious material, the dinner-bell rings, and all the flies about the premises swarm to the table and walk over the food and swim in the milk. The rest of the family become infected with typhoid fever or dysentery and immediately lay the blame to the water supply."

Eggs of the fly deposited in the manure hatch in eight to twelve hours, the larva becomes the pupa in five days, the pupa gains its wings in five more, making the entire cycle of development about eleven days in warm weather. The female fly lays about 150 eggs, and one pound of horse manure will produce 1200 flies. The fly is grown when it gains its wings

Flies transmit infectious material directly from their feet and body to the food, or the germs and spores may be deposited with the fly's feces. The infected fly may be swallowed with food or die and be disseminated as dust. Or, the fly may inject infectious material through an open wound.

The paper is admirable, in that it tells these truths in a plain, sensible manner, which is within the comprehension of the most limited intelligence. It is a paper which would do most good if placed in the hands of the laity. We sincerely trust that Dr. Lincecum will have reprints made of this paper and distribute them as widely as possible. Such plain statements of facts in simple, comprehensible manner carry conviction with them; and if the readers not only exclude flies from their houses, but will cover up and put out of their way all excreta, animal and human, in the neighborhood, benefit will result in other ways.

When one thinks of the enormous good that could be done in a community by any physician who realizes the importance of these facts, it is difficult to account for his complaint of having "nothing to do." The work is there, if he will only recognize it, and although he may not be paid directly for such work, the reward will surely come to him in the increased appreciation in which he is held in his community; or if not in this, at least in his own consciousness of good work faithfully done.

Just because a man can break a broncho or win a prize-fight, it's no sign he can manage a woman.
—"Gideon Wurdz"

ALOIN AND OTHER RECTAL TONICS

Dr. G. R. Heath informs us that he has secured very satisfactory results, in a case of hemorrhoids, from aloin. The dose given was 1-10 of a grain, with belladonna and nux vomica, administered in a single dose on retiring. In this small dose aloin seems to have quickly afforded tone to the relaxed vessels in the hemorrhoidal area, this action being aided by the nux. Belladonna, through its atropine, probably acted by dilating the capillaries in certain parts of the system, allowing an easier outflow of blood from the congested area. This is strictly a small-dose effect of aloin, and my impression is that the dose given, 1-10 grain, is rather large for ordinary patients, I prefer 1-24 grain, increasing it if necessary or decreasing if this proves irritant in any special case.

In this connection I would point to the remarkable efficacy of aesculin in maladies

of this kind. Given in doses of one milligram seven to ten times a day and continued four to six weeks, this drug has an efficacy which is difficult to explain. It seems in some manner to open up the portal circulation and relieve the passive congestion by which the blood is backed up into the hemorrhoidal area. Its action, however, has not been investigated, and this suggestion is simply a surmise based upon observation of the clinical results following its administration. I have many reports as to the efficacy of aesculin in this and other rectal maladies.

God bless the man with a scheme, an idea. It may be visionary, but in any case it must certainly be better than to be resting all the time.—Leslie M. Shaw.

SNAKE-VENOM AND ITS THERAPY

The publication of Professor Mays' article detailing the successful treatment of a series of cases of tubercular phthisis by hypodermic injections of rattlesnake-poison has aroused much comment. It seems that at last the medical profession and the public alike have awakened to the supreme importance of this terrible malady, and it is receiving the attention it merits. Any suggestion pointing to a decided improvement over the older methods of treatment is welcome, and any observation from the distinguished professor of medicine in the Philadelphia Polyclinic must receive respectful consideration.

In the serpent-venoms we have agencies of tremendous powers. That these potencies may be utilized for the benefit of the sick demands that we shall be aware of the exact nature of the action manifested, and apply these remedies, in appropriate doses, when such action is requisite for the corresponding disorders of vital function.

We must first, however, get rid of the superstitious dread of venoms, the result of ignorance. Knowledge enables us to utilize the terrific powers of prussic acid, and all our dread of diphtheria does not deter us from injecting its derivative, antitoxin. These and many another agency of lethal properties are useful servants to our hand because we know them and can direct their energies with scientific certainty. The only reason why we do not thus utilize many other toxic agents is that we do not possess a like knowledge that would render them safe and effective in our hands.

Serpent-venoms are by no means of definite primary structure like the alkaloids, but are highly complex, and differ with each species, though there is a marked similarity between the venoms of snakes of the same family. They contain albuminous bodies which are exceedingly prone to decomposition and until recently have defied all attempts at isolation. Major Lamb, of the Pasteur Institute of India, says that the venoms of that country contain the following classes of principles: (1) powerful fibrin ferment; (2) antifibrin ferment; (3) proteolytic ferment; (4) various cytolysins capable of acting upon the red blood-cells, leukocytes, endothelial cells of vessels, nerve-cells and others; (5) agglutinin for red blood-cells; (6) antibactericidal body of the nature of anticomplements; (7) neurotoxin or neurotoxins with affinities for all nerve-cells, especially for those of the respiratory center, the special affinities of these varying in different venoms; (8) neurotoxin that acts on the nerve-endings, especially on those of the diaphragm; (9) principle that acts directly on the heart-muscle, stimulating it and increasing its tone.

No single venom possesses all these ingredients, and the effects of each depend upon which are present and in what proportions. Even when similar results follow the bites of two serpents of different species it does not follow that they are due to the same combination of agents.

In the cobra-group the principal constituents are neurotoxins, acting on the cells of the central nervous system, especially the respiratory center in the bulb. Progressive paralysis follows their bite, with death from respiratory failure. With the circulation maintained, animals may be kept alive by artificial respiration for hours after reflex action has been abolished. After two hours acute chromatolysis of the ganglion

cells occurs throughout the cerebrospinal system, most marked in the cord, least in the pons and medulla.

These venoms also have neurotoxins acting upon the nerve-ends in voluntary muscle, especially the phrenic ends. Colubrine venoms influence the circulation directly through the heart-muscle and indirectly through the nervous system. When very dilute they strongly stimulate the heart, and if the strength of the solution is increased this action becomes more marked till the heart stops in systole. They also markedly stimulate the walls of the arterioles, so that the blood pressure is maintained at or above the normal.

On the blood-plasma these venoms act as antiferments, completely preventing coagulation. The Australial colubridæ, however, contain a very powerful coagulant. Those of India also contain hemolysins. The symptoms of these venoms are chiefly nervous. There is much pain at the wound, followed by swelling, tenderness and redness; the patient feels drunk, sleepy, weak in the knees, nausea and vomiting soon occur, paralysis increases until he can not stand, the tongue and larynx become affected, respiration slows and finally stops, the heart continuing to beat for a while. Convulsions may precede death. If not fatal, recovery is rapid.

The colubrine family is represented in the United States by a small snake of the Gulf States, banded in red, orange and black—little known but ranked as the most venomous snake of America.

The rattlesnake, copperhead and moccasin belong to the vipers. Lamb says that viperine venoms do not act so much on the nervous system except the vasomotors, the striking fall of blood pressure being characteristic. The respiratory centers are not affected.

A well-marked action is exerted on the blood plasma, the blood-cells and the arteriole walls. They contain a powerful fibrin ferment, instantaneous thrombosis occurring after full doses; but if insufficient for this, the blood becomes incoagulable. They destroy both red and white blood-cells, and the continuity of the vessel-walls by cytolytic action on the endothelial cells. Hemorrhages form a prominent feature of their effects. Locally there is much swelling and ecchymosis, with serious hemorrhage that may last some days.

The general symptoms are marked collapse, small thready pulse, cold sweats, nausea and vomiting, pupils dilated and insensitive, often complete loss of consciousness. After temporary recovery the patient may fall into deeper collapse, or the local lesions may extend and other mucous hemorrhages follow. Local sloughing, malignant edema or tetanus may occur. Albuminuria or hematuria is constant.

The indications as given by Lamb are to delay absorption and to counteract the effects of the poison. For the first he applies a ligature to the limb, lightly, and only where there is but one bone, not on the forearm or the leg. To destroy as much as possible of the poison make careful deep and free dissection down to the bone; wash with strong solution of potassium permanganate. Wall however found the injection of this agent almost useless. Lamb met the same difficulty in employing the method advised by Brunton, Fayrer and Rogers, rubbing this chemical into incisions made with a lancet over the punctures. Only by chance could the permanganate reach the poison. Sucking the wounds is absolutely useless.

The only hopeful method of counteracting the venom, in Lamb's opinion, is the use of an antivenene. Calmette's preparation has failed because it only antidotes the venom from which it is derived. Besides, the strongest serum yet made only antidotes a milligram of venom for each Cc., and the cobra may inject a minimum up to 350 milligrams at once. The lethal dose is 15 to 20 milligrams. If the serum is injected intravenously it acts ten to twenty times stronger than when administered subcutaneously; so that we must use up to 350 Cc. of the antivenene intravenously, or ten times or more hypodermically, to neutralize enough of the venom to save life after a cobra-bite. Lamb

advises doses of at least 100 Cc. at first. Beyond this he thinks little can be done except to keep the patient warm. A little alcohol may prove beneficial, but for large doses of this agent he has only the strongest condemnation. Ammonia or strychnine serves the same purposes as alcohol. In viperine intoxications epinephrine chloride should be employed to counteract the vasomotor paralysis.

Sir Lauder Brunton believes that by immunizing a horse with several venoms a serum can be prepared that will counteract the poisoning from all the varieties of serpents employed. The serums can only be applied at stations, and it is uncertain how long they retain their activity. Potassium permanganate and the chlorides of platinum and of gold completely destroy the venom when added to it, but further experimentation was stopped by the passage of the British antivivisection act. Richards found that he could prevent the development of poisoning when the permanganate was injected as long as four minutes after the bite, but not after symptoms had developed. Rogers also obtained good results by making incisions into the punctures and rubbing permanganate crystals in with water or saliva.

In Australia it was found that the cause of death after snake-bite was paralysis of the great abdominal vessels, allowing the blood to collect there until syncope from cerebral anemia resulted. Strychnine directly antagonized this condition, and it was necessary to administer enough to counteract whatever dose of venom had been injected; so that far more than the ordinarily fatal dose of strychnine was given and life saved only by disregarding the usual dosage.

The tendency of the day is so strongly toward sera that this drug treatment seems to have fallen out of sight; yet it is effective against all of our native serpents, and possesses so many practical advantages that it should not be suffered to fall into desuetude.

Many years ago Dr. Thackeray observed that at a large cattle-ranch numerous animals were bitten by rattlers, and if the animals were confined to the corral the following night they died. If, however, they were permitted to remain on the range they were little if any the worse for the bite. This could only be explained on the theory that the cattle obtained some plant that antidoted the venom, but what plant this is could not be decided. Echinacea grew abundantly in that region, and there are many physicians who have firm faith in its efficacy as an antidote.

It should be understood, before judging the real value of any treatment, that the mortality after snake-bite is not quite so large as is usually supposed. Some years ago it was announced—we believe by the Smithsonian people—that rattlesnake-bites were fatal in but 10 percent of the cases, copperhead-bites in only 15 percent, and not a solitary well-authenticated case could be found of death after any variety of land or water moccasin-bite. It is easy to see how any remedy could obtain an unmerited reputation with those who suppose any snake-bite to be inevitably fatal without treatment.

In small doses alcohol combats fear, and fear alone probably kills more victims than the venom. But the direct action of alcohol increases the vasomotor relaxation that constitutes the essential feature of viperine poisoning, and hence adds to the true peril. It never has saved any person who would have died from the venom alone without the whisky.

Only a few observations have come to me on the application of crotalin in the treatment of pulmonary tuberculosis, but these seem of the utmost importance. Mays employed a solution of crotalin, and recommended doses of 1-200 up to 1-25 of a grain; he also gave it by the stomach.

I have secured my supply from the same source as that of Mays, and had it prepared in hypodermic tablets. The reaction after these has been such as to induce me to urge commencing doses of half a tablet, or gr. 1-400, inasmuch as the reaction of different patients against the remedy is quite widely different. It is easy to increase the

dose if desirable. No case has occurred where I had to give more than gr. 1-200. I conclude that Mays' solution rapidly decomposes, while the tablets do not.

Much of the material in this paper is to be credited to *The Antiseptic.*

Never strike sail to a fear. Come into port grandly, or sail the seas with God.—Emerson.

LOOK OUT FOR THE COLLAR BUTTON

It is the little foxes that spoil the vines all along life's journey, and it is the little things that snuff out many a life. The tendency of a child, during the first year or two of its life, to reach for shiny baubles and to cram everything into its mouth with a view to seeing if it is good to eat leads to many an accident, hardly anything being more dangerous (because at first so seemingly harmless) than the collar button, which so often eludes the *pater*, hiding under the bureau or behind the dresser-leg, to be later sought out by the bright-eyed baby on the floor. Well do I remember an experience in my own practice, years ago, when I was called from the street by a screaming mother to see a baby dead in her arms from a collar button caught, small end down, in the chink of the glottis. Ten minutes before the little one was a happy, crowing, growing family delight.

Need for caution in this respect has just been brought to my attention by a collar-button accident in the family of a friend whose baby, mouthing a collar button, fortunately did not choke to death because the button passed over the larynx to stick halfway down the esophagus. The button was swallowed, unknown to anybody. The presence of something foreign was suspected because the child regurgitated its food and, later, began to cry from pain. The x-ray located and identified the difficulty and a surgical operation at the hands of Drs. Bussey and Green of the Ravenswood Hospital, after painstaking work for an hour or more, removed the button, verifying the x-ray diagnosis and thus relieved the baby, saving him from death and bringing him back to recovery from a condition which, without these modern diagnostic helps and skilled surgical interference, would have left another family sorrowing for their first-born.

THE TREATMENT OF MASTITIS

"The newly confined mother, especially if a primipara, is frequently troubled by engorgement of the breasts, due to fissures; or the nipple being small and ill-formed, the nursling has difficulty in getting suction established. This occasions much distress and often induces the mother to give up nursing her child. The breasts become brawny, local inflammation develops, and the breast is engorged with curdled milk. A chill occurs and fever is established. Ointments and poultices are applied fruitlessly. The health of mother and child is endangered.

"The means usually employed to give relief consists in gentle rubbing with the ends of the fingers dipped in some bland oil. This may be continued ten minutes and repeated two or three times a day. Despite the pains it is necessary to insist on this measure and to watch for a repetition of the engorgement and curdling. This spoiled milk must not be fed to the infant but other liquids given until the breast has returned to the normal state. Meanwhile the breast should be supported by a well-applied bandage.

"The bowels should be kept clear by saline laxatives, and the access of fever met by the use of aconitine and quinine hydroferrocyanide, one granule of each every morning and night. By these means the formation of abscess may usually be prevented."

The foregoing comprises what Burggraeve has to say concerning the treatment of this malady. One may realize from this what a rich development has been given the active-principle method in America. The remarkable properties of phytolaccin seem entirely unknown to our Gallic confrères. The control exerted over mammary inflammation by this agent is one of the most notable instances of specific medication. It is my custom to give a centigram of phy-

tolaccin every half hour, dissolved in hot water, until the engorgement has subsided or slight nausea is experienced. No instance of failure has as yet occurred in my practice during the twenty years and more I have employed this remedy.

When suppuration is threatened, as shown by chills and fever, it is well to add the powerful influence of calcium sulphide. Give a centigram every half hour, with the phytolaccin, keeping the bowels clear and supporting the breasts with a bandage. The results will be quite satisfactory. Any fissures of the nipples should be pencilled with tincture of echinacea—effective and harmless.

It is a disaster to have the child weaned, and every endeavor should be made to induce the mother to continue nursing. One might think that a woman who had borne with fortitude the pangs of parturition would bear as well the smart of the child's nursing at a fissured nipple; but such is rarely the case. Great pains are endured when one's nerves are keyed up to it; then comes a reaction and the heroine of the day before becomes a whimpering, shrinking bundle of uncovered nerves.

All the world's work is drudgery, but the man who does the world's best work does not think it drudgery.
—Leslie M. Shaw.

A MONUMENT TO TURNER

On the 27th of October a ceremony of unusual significance was held at the town of Wilkins, Connecticut. A monument was there unveiled, erected by the American Society for the Study of Alcohol and Other Narcotics, to the memory of Dr. J. Edward Turner, who had been a practising physician of that town. The dedication address was delivered by Dr. L. D. Maron of Brooklyn, while the venerable Dr. Henry O. Marcy made a historical address on "Heroes and Martyrs in Medical Science." Dr. T. D. Crothers gave the memorial address.

We need not remind our readers of the debt which the medical profession and humanity in general owe to Dr. Turner; but we congratulate the Society for this public recognition of his merits and service. It is unfortunate that such recognition comes too late to give the recipient that reward which he had earned. In truth, it is one of the strongest arguments favoring the belief in a future life that without such a hypothesis there is so much in this life which would remain otherwise painfully fragmentary.

The list of heroes and martyrs in medical science is a long one. The work of the most of them lives only in the memories of the grateful community which has benefited by their skill. It is only exceptionally that the medical profession arouses itself from its bickerings and lethargy in order to do honor to some McDowell, Morton or Turner.

THE PRINCIPLES OF THERAPEUTICS

In his course at Bennett Medical College Prof. Waugh is departing from the usual textbook in his method of handling his subjects. Didactic therapeutics, as taught in this college, is amply covered by Prof. Thornton and his staff. Dr. Waugh is supplementing this course by a series of lectures in which the topic is treated from the standpoint of the young practician. The greatest difficulty that meets the physician in the beginning of his practice is that he has studied in the analytic manner but must practise in the synthetic. In his studies he commences with the name of a disease, and works through its history, pathology, anatomy, etiology, symptomatology, diagnosis, prognosis and treatment. In actual practice, however, he meets the patient and works backward to the name of the disease.

In his first lecture Prof. Waugh treated of the indications presented before the patient had been seen; that is, the attention that must be given to the investigation and correction of the hygienic conditions in and around the dwelling. Next, he took up the ick-room and its hygienic arrangement and management. Coming to the patient, the first indication, applying to all patients alike, no matter what the disease, he found to be emptying and disinfecting the alimentary canal. Following this, he treated

of the eliminants. The lecturer insisted upon the urgent necessity of knowing that the renal elimination was unobstructed and competent, showing that the danger from infectious and other febrile diseases lies primarily in the toxemia induced, and the way to safety is in the prompt and complete elimination of these toxins.

Hence the necessity for a complete quantitative examination of the urine before beginning the administration of any remedy, which, if retained in the body, is capable of exerting toxic action. Illustrative cases were cited, in which one grain of calomel, or one-eighth grain of morphine, or comparatively small doses of digitalis had caused the death of the patient; these agents being retained in the system, circulating again and again in the blood, until their cumulative action overcame the vital resistance.

The foregoing comprises a routine, to be followed in every case in which the physician is consulted for aid, irrespective of what the nature of the trouble may be. These preliminaries attended to, the special features of the case are to be taken up. The importance of establishing such a routine as this is obvious. Many a time the direct efforts of the physician have been nullified because the patient was inhaling impure air, drinking impure, contaminated water, absorbing a flood of toxins from a loaded colon, or suffering from pent-up toxins in the blood, which the kidneys, being comparatively impermeable, were not excreting. Setting aside the emergencies which demand instantaneous action on the part of the physician, there are no diseases for which patients apply for medical aid in which the above rules are not applicable.

In these subsequent lectures Prof. Waugh will take up the therapeutics of special symptoms or conditions, such as fever, pain, spasm, hemorrhage, syncope, coma, vascular contraction and relaxation, cardiac debility and excitation, cough, etc. The alkaloids will not be neglected, and in all cases where the use of active principles is preferable to that of other preparations, their application will be fully described and exemplified by the clinics. The supply of clinical material is abundant and increasing rapidly, in fact, it is becoming difficult to care for it in the time allotted.

Folks who pride themselves on not being "commercial" are often warmly intent on picking the pockets of men who are.—Elbert Hubbard.

A JOURNAL THAT WILL FIGHT THE DOCTOR'S BATTLES WITH QUACKERY: DO YOU WANT IT?

For some time we have been considering the advisability of publishing a little journal for laity circulation— one whose definite purpose would be to fight the doctor's battles, push back the torrent of misrepresentation and throw light upon the limitations and falsities of the vast horde of healing cults and sects of all kinds, which are doing so much to undermine the doctor's influence, robbing him of practice and taking away his livelihood.

It is a remarkable fact that practically every socalled health journal published (I cannot at this moment think of a single exception) either opposes the interests of the general practician openly or does it in some insidious way; in other words, every journal of this kind has some "ax to grind." It may boom the interests of some private sanitarium, some healing cult, some dietetic system, or some form of mental or "faith" healing. Today we can hardly pick up a newspaper without finding in it some article tending to destroy the faith of the laity in the physician. The magazines are filled with material of this kind. There is practically nothing in the general journalistic field which supports the interests of the medical rank and file. I believe that a bright, snappy, forcible, little magazine, one which can be furnished at a subscription price of 20 to 30 cents a year, and in lots of fifty and one hundred at 10 to 15 cents each subscription, which the doctor could afford to subscribe for in quantities and circulate among his clients, and one which the layman himself would gladly pay for because it would be so good that he couldn't help liking it, would find favor from the start. .

Such a little magazine should be filled with short talks about the achievements of modern medicine and the progress that is being made constantly in our art; it should tell of new discoveries for the prevention and the cure of disease; recount stories of heroism on the part of the profession; give the public an insight into the lives of our great medical men; meet the arguments of the new cults in a forceful, convincing spirit; and show up the myriad frauds of quackery. There should be scraps of poetry, good stories, a correspondence department to which readers of the journal would be invited to contribute and where their questions would be answered. Every problem of human interest relative to the physical health should be dealt with *in such a way as to lead the reader right back to the doctor.*

Our proposal, only half-defined as yet, is that we shall produce such a little paper, containing 32 pages, each approximately the same in size as the CLINIC, no article in it to exceed one page in length except under very exceptional circumstances. This journal shall not cater to the interests of any clique or school of physicians or any manufacturing house. The advertising pages shall be kept clean and no medicines advertised or recommended to the laity. The whole purpose will be to bring doctor and layman closer together and to combat at every point the inroads of quackery, intolerance and ignorance in all their hydra-headed forms.

Our profession is doing things, great things. There is no factor in the world working so strongly for the benefit of mankind—and no class of men is so misunderstood, vilified and abused as ours. We are losing caste in society; getting poorer every day; "getting it in the neck" everywhere. It's time we were up and doing, and right strenuously.

How is this little magazine going to pay us? We shall be sufficiently paid if we are able to show the laity that our profession is striving for its best interests, that the men who are engaged in it are honorable men who can only succeed just so far as they are able to give good service, and that the word of men like these should be trusted in preference to that of those with no knowledge of the human body and its diseases. This whole idea, Brothers, is conceived in your interest—to help you.

What will YOU do to make such a journal a success?

Without your cooperation we shall not undertake it. We must have, at once, the opinions of just as many readers of CLINICAL MEDICINE as possible—your own, Doctor! I want to hear from you. This matter must not be sidetracked or put off. It is important. Shall we fight or shall we quit right here? Tell me if you approve of this plan, then if you will back your approval with subscriptions for ten, twenty, fifty, one-hundred, or five-hundred, or what number copies at the prices named above.

Finally, help us christen the infant—"give us a name." We want a name that will tell the story and make it "stick out" from the very start.

I must hear from one thousand—I should hear from ten thousand of you—within ten days, and every letter should carry the pledge of financial as well as moral support.

Now—it's up to you!

W. C. ABBOTT.

Chicago. Ill.

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION

The annual meeting of this association, which was held this year in St. Louis, in October, was an unusually good one. While the attendance was not up to the average, this defect was fully compensated for by the extreme interest of the papers presented. Seldom have there been got together so many contributions of such uniformly high character.

We wish especially to call attention to the symposium on exophthalmic goiter, which was discussed both from a medical and surgical standpoint; to Dr. Charles Wardell Stiles' paper on the hookworm disease, whose interest has since been intensified by the appointment of Dr. Stiles to head the Rocke-

feller Commission, which will have at its disposal the fund of $1,000,000 for the eradication of this disease; and to the symposium on pellagra, which was discussed by Dr. Lavinder of the Public Health and Marine Hospital Service, and Dr. J. J. Watson of Columbia, S. C., a well-known student of the disease, both in America and Italy. There are no subjects before the profession today of more timely interest than these. On another page we shall give some facts regarding pellagra, many of them gleaned from these papers and the discussion which followed.

Of the provisions for the comfort and entertainment of visiting physicians and their ladies little needs to be said. St. Louis does these things well. There was a theater party, outdoor trips for the ladies, an inspection of the St. Louis water-works system, etc.

The only jarring note was in connection with the exclusion from the program of the paper of Dr. G. Frank Lydston, of Chicago, on "The Russianizing of the Medical Profession of America," this having been arbitrarily removed by the program committee, although it appeared on the printed program, in regular order, under the assumption that it was "an attack on the A. M. A." Dr. Lydston engaged a parlor at the Southern Hotel in which to read his paper. He was not permitted to do this even; then he went over to another hotel, where it was read to a large and appreciative audience—who probably enjoyed it the more because it was a "thing forbidden." The episode was well advertised in the St. Louis papers.

While we hold no brief for Dr. Lydston, who is well able to fight his own battles, it seems to us that the program committee made a serious mistake. Americans believe in free speech and fair play, and the charges of Dr. Lydston were given an added force by the suggestion of "gag rule" which was used in the method of suppressing him and his paper.

The next meeting of the Association will be held in Detroit. The new president is Dr. Frank P. Norbury, formerly of Jacksonville, Ill., but now of Kankakee, where he has gone to become superintendent for the state hospital for the insane.

There is no character, howsoever good and fine, but it can be destroyed by ridicule. Observe the ass for instance: His character is about perfect; he is the choicest spirit among all the humbler animals, yet see what ridicule has brought him to. Instead of feeling complimented when we are called an ass, we are left in doubt.—Mark Twain.

THE CARE OF THE "LUNGER"

As the mornings and evenings grow cooler and the fall winds freshen, the thoughts of many thousands of our ailing ones anxiously turn toward the still sunny southland. The sentiment of the masses does not veer like a vane with every shift of medical opinion, and it will be long—if ever—before the faith of the people in the virtues of sunshine and a life in the open fails. If sunshine is destructive to microorganisms and the open-air life continues to cure phthisis, it seems rational to conclude that that climate will prove best where the most time can be comfortably spent outdoors. But if the most attractive localities exclude the tuberculous by quarantine legislation, what is the "lunger" to do?

Sunshine and open air do not mean warmth, and cold is not essentially pernicious to the consumptive except as it discourages his venturing out of doors. Vital depression favors the operations of the tubercle bacillus, whether the depression is the result of overwork, worry, underfeeding, fecal toxemia, exposure to cold and wet, or to the enervation consequent upon an idle indoor life. Books might be written upon the management of the consumptive, but we say it all when we declare that he must learn to live hygienically, and his doctor must treat him strictly in accordance with the indications presented by him. By this we mimimize the work of the bacilli and conserve the vital powers of the patient. So much may be done in prolonging the life of even incurable cases that many will reach the full limit of their expectation and that in comparative comfort and usefulness.

There is no disease in which the doctor who really knows drugs and their uses can

do more. Autotoxemia removed (and no single remedial measure counts for so much); the alimentary canal cleared and disinfected; the digestion regulated so that the patient gets all the food he can utilize and no more; the respiratory tract cleared of debris and properly medicated; the renal elimination gauged and maintained; every leak of vital force stopped, every lagging function incited to full normal activity; and a direct and unremitting warfare waged against the intruding bacilli—these done, the foundation for a cure has been laid.

We need not throw overboard any good thing our past experience has approved, nor should we neglect to give a fair trial to any newly advanced method or remedy that has any possibility of value. If tuberculin, or guaiacol, or the sulphides, or crotalin, or any other remedy has a useful application that no other known remedy will supply, we can not afford to do without it.

I am speaking to men whose brains have not yet become sclerotic, who are still capable of receiving new impressions and forming new ideas. It is this that renders the task of teaching in a medical college so pleasant. When a man has beliefs, and believes that certain truths mean life to the patient who would die without their application there is an inspiration in the eager young faces that follow his every word. But when we try to tell these same truths to men who ought to know them and don't, but who take any suggestion pointing to a betterment of their crude, antequated methods as a personal affront, we gladly go back to the boys.

ILLEGITIMATE BIRTHS IN GERMANY

The Post-Graduate expresses surprise that the number of illegitimate births in the university towns of Germany, as shown by the latest statistics, is higher than for the other towns of 15,000 or more inhabitants. Thus in Celle, 22.2 percent of all births are out of wedlock, in lesser Neu Ruppin 18.9 percent and in Paderborn 23.4 percent; while Berlin shows only 17.3 percent. Of the smaller university cities Bonn has 21.7 percent; while of adjacent cities Cologne has only 12 percent and Coblentz 6.1 percent; Breslau has only 18.1 percent while Goettingen shows 23.7 percent and Greifswald (a very popular university town) rises to 31.1 percent; Halle, which seems to represent about the German level of illegitimacy, has 15.1 percent, and Koenigsburg 16.4 percent. At the head of the list stands Marburg with 37.7 percent, which makes the worst showing of the Empire.

The Bavarian university cities show thus: Erlangen, 16.1 percent; Wuerzburg, 20.4 percent; and Munich, 26.7 percent; while with one exception the figures of non-school towns are far behind these. In Saxony, Leipzig, with 18.8 percent, is exceeded only by the manufacturing city of Plauen, with 19.8 percent. In Wuertemberg, Tuebingen, with 32.2 percent, had almost three times as many illegitimate births as the capital city Stuttgart. Heidelberg, with 25.4 percent, held the record for Baden, and Giessen, with 32.7 percent that of Hessen, while Darmstadt had only 8.5 percent. Rostock, with 17.4 percent, stood at the head of Mecklenburg, and Jena with 24.4 percent at the head of Sachsen-Weimar.

To those familiar with the ways of German students these comparative figures (for 1906) are not at all surprising. The only reason why they are not even larger is that large numbers of the girls are sterile from gonococcal infection of the tubes.

THE ANNUAL INDEX

Every year we prepare and print an index to the annual volume of CLINICAL MEDICINE, The index is not now bound in and mailed out with the magazine, as was formerly the custom. This was a large expense and furthermore compelled us to reduce the amount of reading matter in the December issues, something that we disliked very much to do. We shall be glad to send, free, a copy of the index for 1909 to every subscriber who desires it and will so advise us. Drop us a postal card and let us know. The index will be ready some time in January.

Opium and Its Alkaloids

A pharmacodynamic study of the principal alkaloids of opium, a group of the utmost value, yet sometimes possessed of the gravest danger. Also, the statement of a new basis for the therapeutic use of morphine

By ROBERT TISSOT, M. D., Chaux de Fonds, Switzerland
Collaborator on "Folia Haematologica," and on the "Journal de Dosimetrie et d'Alkaloidotherapie"

OPIUM is the dried juice obtained by incision of the unripe capsules of the garden poppy, papaver somniferum. This beautiful plant is a native of Turkey, Asia Minor and Persia. Opium contains a great number of alkaloids, the principal ones of which are:

Morphine, from 9 to 12 percent.
Narcotine, from 5 to 7 percent.
Papaverine, from 0.5 to 1 percent.
Codeine, from 0.2 to 0.8 percent.
Narceine from 0.1 to 0.4 percent.
Thebaine from 0.15 to 0.5 percent.
Laudanine, 0.001 percent.
Codamine, 0.002 percent.
Hydrocotarnine, a very small percentage.

Other principles found in opium are: laudanidine, laudanosine, meconidine, papavoramine, protopine, lanthopine, cryptopine, gnoscopine, oxynarcotine, xanthaline, tritopine. All these bodies are alkaloids. The pseudomorphine of Pelletier does not seem to be preformed in opium.

These alkaloids are combined in opium with certain nonnitrogenous crystalline bodies such as meconin, meconoiosin, opionin, and a peculiar acid (meconic). The pharmacology of most of the alkaloids of opium is but little known because it is difficult to obtain each one of the bases in a state of sufficient purity.

In 1883, Von Schröder divided these alkaloids into two groups, namely, the codeine group and the morphine group.

The Codeine Group

This group comprises papaverine, codeine, narcotine, thebaine, hydrocotarnine, laudanosine and cryptopine. In this series the narcotic effect diminishes as the excitant effect increases. This pharmacologic conception is drawn from experiments on animals, and it is not practicable to apply it directly to man, since codeine, which occupies the second place, is in human therapeutics exclusively narcotic; furthermore, narcotine is also exclusively narcotic and that solely in the enormous dosage of 2 to 30 grains.

On the other hand, the excitant action of morphine in man is a fact well known and definitely fixed in practice. This action (variable, however), seems to depend upon the state of tension, the irritability, more or less great, of the nervous system; this irritability depending upon the morbid condition of the patient. The ideas concerning narcotine, papaverine, cryptopine and me-

conin vary greatly with different authors. On account of this fact one is inclined to inquire whether the different experimenters have always employed the same pharmaceutic agents.

The Morphine Group

The morphine group comprises morphine, narcotine, codeine and papaverine.

Narceine produces dyspnea and vomiting. Weichhardt and Stadlinger think that there also exists in opium a toxin which may be formed at the expense of the albumins and which acts like the fatigue-toxin. Opium owes to this toxin a part of its narcotic properties! This fact, if confirmed, should suffice to banish crude opium from therapeutics, for it is inconceivable that a physician would permit himself to *fatigue* his patient with a body which is specifically a producer of fatigue. (Let us recall here that Weichhardt himself discovered the toxin of fatigue and that he has even prepared an antitoxin from this toxin. This antibody should have the property of *defatiguing* rapidly. All this is very beautiful, but it has not as yet departed from the precincts of the laboratory.)

Pharmacodynamic Action

Opium and also morphine (the latter that alkaloid of opium whose action approaches most nearly to that of opium itself) paralyze the brain of warm-blooded animals. Their action is manifested primarily on the centers of sensibility in the brain. Later it is extended to the respiratory center and to the spinal cord. In therapeutic doses these agents relieve painful sensations; they prevent the perception of excitation and thus provoke sleep that may remain uninterrupted by even very strong stimuli. Larger doses (3-4 grain of morphine) provoke profound narcosis with pupillary contraction of the central organ, cyanosis, and irregular, slow, deep and stertorous respiration. The heart is not influenced until later, but the vascular system is dilated, thus causing redness of the skin, pruritus, exanthemata and sweating. The pulse is generally slow, peristalsis is diminished, and the vital metabolism (*stoffwechsel*) retarded.

Many individuals are extremely sensitive to even small doses of morphine. Generally gastric digestion is disturbed and prolonged beyond its normal duration. The administration by the subcutaneous route does not prevent these disturbances, because the morphine circulating in the blood is finally eliminated through the gastrointestinal mucosa.

These facts render necessary the dosimetric application of morphine, which should be given in small doses but at short intervals, in order to prevent other accidents. For that reason it is a matter of prudence to sustain the tone of the medulla oblongata (on account of the centers of vital importance which it contains). Strychnine, that admirable tonic of the nerve-centers, meets this indication in a manner absolutely efficacious.

Finally, to avoid inopportune vasomotor effects we associate with these two alkaloids *hyoscyamine,* an alkaloid of the atropine group. (Hyoscyamine is also sometimes called atropidine, duboisine and daturine. It would be desirable if these synonyms could be dispensed with since they only cause confusion in alkaloidology.)

With these precautions the physician will run no risk of hearing the telephone ring in the night to announce that his patient has ceased to breathe, as very frequently occurs under the ordinary administration, by the subcutaneous route, of 1-6 to 1-3 grain of morphine, as recommended by the official pharmacology. Truly, morphine, this heroic and blessed remedy, without which the physician would not know how to fulfil to the utmost his humanitarian ministry, above everything ought not to do harm.

"*Sedare dolorem ars autem divina*" wrote Hippocrates; but the same author has also said:

"*Primum non nocere.*"

To do no harm and to give to the remedy the maximum useful effect with a minimum of danger, such is the purpose of dosimetry.

With this purpose in view we combine with the morphine strychnine and hyoscyamine; this combination being given in small doses, but at short intervals, just to

the point of serviceable effect. Here is the combination:

Morphine hydrochloride. . .gr. 1-12
Hyoscyamine (amorphous) .gr. 1-250
Strychnine sulphate. . . . . .gr. 1-67

Give such a dose every half hour to analgesic or hypnotic effect. Clinical experiments repeated thousands of times by dosimetrists show the perfect efficaciousness and absolute harmlessness of this method.

Let us examine now, briefly, the indications for this combination of alkaloids:

Pain, physical or mental, in states of excitation or in psychic troubles, is relieved by morphine.

Severe intestinal contractions, violent peristalsis, gastralgia, spasms due to concretions (hepatic colic, for instance), pains due to harmful neoplasms and tuberculosis are relieved as if by magic by this alkaloidal combination.

Neuralgic pains should be relieved by morphine only exceptionally. This narcotic should be employed only when other remedies have failed, because it is upon these patients that the morphine-habit becomes most frequently fixed. Dental pains, rheumatoid pains, those of febrile maladies (with the exception of peritonitis), various kinds of headaches, are in the same category. In insomnia provoked by pain morphine is primarily indicated, but when the lack of sleep is due to psychic excitation or nervous agitation it is better to employ the modern hypnotics, on account of the danger of morphine-habit formation.

In mental diseases, delirium tremens, paroxysms of furious mania, the suffering of neurasthenia, and in melancholia morphine is an excellent calmative.

Tetanus, hydrophobia and eclampsia also justify the use of morphine.

The dyspnea of nervous asthma, due to the spasm of the bronchial muscles, is also an indication for the use of this drug. On the other hand, the dyspnea of efforts to obtain sufficient respiration [air-hunger? —Ed.] is relieved by strychnine, caffeine, aspidospermine and inhalations of oxygen.

The cough due to inflammation of the respiratory tract and accompanied by the formation of mucus should not be suppressed; however, it is often necessary to combat with morphine, given dosimetrically, the ineffective cough of dry inflammation, because such cough causes congestion of the lung.

In pulmonary hemorrhages morphine is very useful because it puts at rest the respiratory apparatus, this repose contributing greatly to the cessation of the hemorrhage.

The constipation of lead-colic and that associated with fecal stasis is relieved by the morphine, hyoscyamine and strychnine combination, which arrests intestinal spasm.

Intestinal hemorrhages and intestinal perforations, those of the appendix in particular, also clearly call for this combination, because it puts the intestine at rest and facilitates the formation of a protective inflammatory rampart. At the same time, the combination relieves the terrible pains due to these lesions.

In diabetes mellitus, morphine and codeine are borne in very large doses. They give a degree of success which is most often ephemeral, but they often greatly relieve the sensation of thirst. The latter is also true in diabetes insipidus.

The harassing coughs of phthisis, pains referred to the female genital apparatus, and precordial agony, are also relieved by morphine given dosimetrically.

A New Conception of Morphine-Therapy

We come now to considerations which put morphine on a new basis and in a position which places it very high in the pharmacodynamic scale.

Morphine, as we have seen, is a sedative; it is the hypnotic *par excellence*. It provokes sleep and with it the phenomena which are unfolded mainly during sleep. When the cerebral and sensorial functions appear to be abolished, only the movements absolutely necessary to life, namely, those of the heart and respiratory apparatus, are preserved. And yet in sleep, the *imago mortis*, the work of the body is never arrested; only in place of being manifested externally it becomes internal. It is unfolded even in the cells themselves.

Let us take, for example, the cells of the neurons. When the mind is awake these cells expend much force and throw into the nerves an influx, still unknown and mysterious, which is probably of electric origin. To produce this influx, this energy, the nerve-cells oxidize the phosphorus of the lecithins and become charged with the debris of this oxidation. During sleep the nervous influx ceases, or is more or less slowed, but the blood carries into the cells new oxidizable materials capable of producing new lecithins. On leaving the cells this same blood carries away the debris, or ash, produced by the previous combustion. The cells are thus revitalized and purified; thus they acquire new energies which they store away.

Under the action of sleep these cells become the reservoirs of *tension;* hence sleep is a tonic, and morphine, a producer of sleep (Morpheus was the god of sleep), plays the role of a tonic in causing those to sleep whom pain, mental tension and insomnia have exhausted. Sleep is a reconstructive; this is a popular idea, and it is an incontrovertible fact. Morphine, as a producer of sleep, is a reconstructive. This also is an incontrovertible fact.

Morphine is a tonic and a reconstructive. This is the new idea introduced into science by Othomar Rosenbach, who has presented this thought in his celebrated brochure entitled "Morphium als Heilmittel" (Berlin, 1904). The language of this author, difficult and full of neologisms, has prevented his ideas from having all the vogue and all the practical application which they should have. In order to make good this regrettable gap, I shall give here some extracts gathered from the little-known work of this talented physician.

The vital phenomena, Verworn has written, are allied to the disintegration, to the simplification by the phenomena of oxidation (phenomena produced by ferments), of the very complicated living molecules, which are the *biogenic molecules,* that is to say, the producers of vital manifestations. The organism builds up these molecules during sleep and destroys them during the state of wakefulness. Such is the mechanism which, while the machine is at rest, prepares the materials with which it feeds the fire of the machine when the latter shall be set going again. This preparation is a vital act, absolutely necessary, which can be performed only during sleep because of the relative repose which sleep produces in the organism. This rest should be given to men in health as well as to the sick; this rest, moreover, should be greater than the sum of the forces spent or to be spent. This is a logical outline of the views of Othomar Rosenbach.

Let us look at the consequences of this new view.

1. *General Indications for Morphine. Euthanasia*

Most physicians are afraid of morphine during acute febrile maladies, in tubercular affections, in chronic diseases of the heart and vessels, because of the effect of the alkaloid on the centers of respiration and circulation. These fears are not justified. In reality doses capable of paralyzing the nerve-centers are much stronger than the therapeutic doses. The secondary harmful effects, such as vomiting, cold sweat, vertigo and tenesmus, are not dangerous, and the less so because they rarely present in patients suffering from organic affections and heart disease.

It is clearly not proper to give morphine to patients who have no real need for it but who demand it nevertheless; but it is necessary to give it to those patients actually in need of it, even though they do not ask for it. The danger of habit formation and of abuse in reality is exaggerated. It can even be said that this danger does not exist, provided the remedy is given dosimetrically, and therefore in conjunction with strychnine and hyoscyamine.

Recently morphine has been advised in chronic diseases of the heart and lungs. Here it is necessary to employ it at once and not wait until the patient is *sub finem vitæ.*

The physician should avoid everything which can do harm to his patient. It is not less important that he should employ a remedy capable of relieving the pains which disturb sleep and consequently nutrition.

For that reason morphine should be given whenever possible during chronic diseases, *but solely at night*, and in small doses carefully measured, and then at intervals such as to prevent any intoxication—this even to patients who seem lost, since it is important always to bear in mind the possibility of unexpected improvement. These doses should only produce *euphoria*. It is not necessary to produce very profound sleep, lest the patient pass from the therapeutic sleep into the sleep of eternity. What we wish is *euthanasia*, not *thanasia*, for man is never the master of life and of death. It is necessary to act the more carefully in proportion as the physician may be deceived.

In connection with this, O. Rosenbach recalls the case of a patient attacked by a marked insufficiency of the aortic valve, during which he suffered with a frightful dyspnea. The number of inspirations and systoles was raised to the maximum. The suffering of the patient became intolerable for himself and for his friends. Subcutaneous injections of 1-3 grain morphine hydrochloride had but a slight effect. The patient cried out bitterly for deliverance. There appeared to be an indication for euthanasia by injecting the largest doses. That was not done, and this was well, since the patient improved, and in spite of his cardiac trouble lived ten years longer.

Some such mistakes may be committed, also, even in pulmonary edema and coma, since often in these conditions there arises occasionally a beneficent crisis which prolongs the patient's life. That is why it is never proper to employ morphine in massive doses but rather always to give cautiously. It is not the narcotic action which it is important to obtain above all. The proper thing to do is to reestablish vital equilibrium in the great crises of the organism. Can one better meet this indication than by permitting the organism to repair its forces and to build up new biogenic material?

Morphine, as we have seen, acts as a tonic to the tissues by bringing to them new tension. It permits also to economize the latent forces by diminishing excitement, suffering and the activities of the body which are not immediately necessary to life. This consideration, one may see, places morphine very high in the pharmacodynamic scale, but it makes necessary the dosimetric employment of this alkaloid, since this method is the only prudent one, that is, the only one incapable of doing harm—as was said at the beginning.

(*To be continued.*)

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[I am sure we shall all await with impatience the second installment of Dr. Tissot's article. The Doctor is, in a sense, an authority, and as one of the leading dosimetrists of Europe we consider ourselves fortunate in having him a regular contributor to our pages.

We do, however, want to inject a word of warning. While the suggested "tonic" action of morphine is a fascinating possibility, it certainly is to be elicited with extreme caution, even when the excellent dosimetric combination is employed which Dr. Tissot suggests. Observations along this line should certainly be followed up, but let us do it in such a way as not to take chances of inducing in anyone that unfortunate condition, the morphine-habit.

Next month the series will be continued, and in the January number we shall show you Dr. Tissot's picture.—Ed.]

Morphine and Its Uses

A review of the manifold applications and numerous indications of this wonderful remedy, drawn from the therapeutic studies of Professor Laura, of the University of Turin, and from other clinicians

By WILLIAM F. WAUGH, A. M., M. D., Chicago, Illinois

II

THE numerous applications in medical practice to which morphine may be usefully put may be classed under three heads: as it is employed to relieve pain, to induce rest or sleep, or to check secretion.

Pain Not Always Calls for Morphine

1. Pain is by no means a simple or primary factor, to be treated as such. An aged physician expressed a too common view by the assertion, "Pain! that means morphine!"

Most forms of pain are spasmodic, such as the colics, hepatic, renal, etc.; and these are best relieved by remedies that relax spasmodic contraction of the smooth muscular fiber. For this purpose morphine is inferior to the mydriatic group, atropine, hyoscyamine, and especially hyoscine. These potent alkaloids have long been employed with morphine, but few seem to comprehend that little of the efficacy should be credited to the morphine. Besides, the latter contributes a real and serious peril of its own.

Pain antagonizes the action of morphine, so that it has been proposed to combat acute morphine poisoning by inserting a knife-blade beneath the finger-nails, that the atrocious pain may counteract the supervention of fatal coma. In calculous attacks morphine is often administered in rapidly repeated and increasing doses until the stone rolls out of the duct in which it has been grasped, the pain ceases to antagonize the drug, and the patient dies narcotized. Hyoscine is more effective, and less dangerous because it is rapidly eliminated. But the conscientious practician will not place too much dependence upon drugs, but if the pain persists after the physiologic action of the analgesant is manifested, will take this as an indication of a fixed mechanical obstacle to the progress of the stone, requiring mechanical means of relief.

A second large group of pains embraces those due to hyperemia of the affected part. Here the circulatory equilibrium may be best restored by the administration of vascular relaxants, which open up the spastic circulatory areas and allow the blood to flow out of the engorged parts, relieving the pressure on their nerves and the heat of the inflammation. Aconitine and veratrine here afford relief as speedily and more decidedly than does morphine; they are curative, also, since they interrupt the progress of the inflammation and prevent subsequent stages by dissipating the initial engorgement.

Pain Due to Stoppage of Blood Supply

A less frequent variety of pain, but one of agonizing nature and perilous in the extreme, is that due to the stoppage of the blood supply of a part. The writer has not in a third of a century forgotten his vain effort to give enough morphine to quell the pain of an orchitic testicle strapped so tightly as to stop the circulation. The kind Providence that watches over young doctors and their patients led him to investigate, find the difficulty, and remove the straps before gangrene had destroyed the testicle. Henceforth he has employed rubber bandages alone for that purpose. Had he here relied on the "morphine for pain" axiom, the result would have been disastrous.

Neuralgia is disappearing from our nosology. The specialists have shown us that persistent and inveterate neuralgias depend upon material lesions along the course of the affected nerves requiring mechanical measures for relief. On the other hand, very many "neuralgias" are undoubtedly

explicable by the autotoxemia hypothesis. The blood becoming charged with toxins reabsorbed from the alimentary canal, these act with especial force on the delicate, sensitive nervous tissues, and at the "point of lowest resistance" an attack of neural pain results. Morphine gives relief by withdrawing the toxins from the blood and throwing them into the cells, where they are stored and inactive; but as the effects of the drug pass off the toxins are thrown out into the blood, reinforced by those formed during the drug-period in the body-metabolism, and the pains recur. Unless evacuants are now given a second dose of morphine is needed—and thus the foundations of the habit are laid.

Such pains are notably relieved by the synthetic analgesants, and these have been of inestimable service in giving immediate relief while the necessary evacuants are doing their work. For the immediate effect of cathartics here is often to increase the pain, by liquefying hard fecal masses and increasing the toxin reabsorption. A weak galvanic current was pronounced, by Anstie, the most powerful of all remedies to relieve neuralgic pains, and the writer has many times proved the practical value of the suggestion. When there is reason to conclude that back of an inveterate neuralgia there is degeneration of the roots or centers of the nerves, the phosphide of zinc possesses an efficacy of which few seem to be aware. No other remedy appears so quickly and markedly to improve the nutrition of the degenerated structures and break up the paroxysmal sequence.

One of the uses of morphine most strongly insisted upon is to relieve the pains of injuries, keeping the patient in comparative ease until the surgeon reaches him, and then facilitating the latter's work.

This applies also to such accidents as the pinching of hernias usually reducible. But while morphine is certainly effective here, it is much inferior to hyoscyamine or to hyoscine as a means of giving relief, and the latter does not increase subsequent suffering by interfering with elimination, as does the first-named drug.

2. As morphine was once the great analgesant, so it was the hypnotic. But who can now suggest a case in which this is the best remedy to induce sleep! Men *must* sleep, whether they will it or not. The absence of sleep must always mean the presence of some obstacle. The removal of this is obviously the indication—the administration of drugs to cover it up an unskilful and perilous expedient. Pain is to be relieved by the remedies above mentioned.

Insomnia, barring pain, is due to the presence of too much blood in the brain. This may be in turn explained by a lack of vascular tension, with feeble heart-action; the patient is sleepy while erect because the heart has difficulty in lifting the blood, against gravity, to the head; but on lying down the cerebral vessels have too weak tension to resist the rush of blood, and the patient becomes wakeful. This condition is so beautifully relieved by a physiologic dose—that is, just enough—of digitalin, ergotin or strychnine, that it is a pity to overlook such an opportunity of nice, precise medication. But if the cerebral hyperemia be active we have an equally nice and effective remedial application in a physiologic dose of aconitine or veratrine; or better yet of gelseminine.

In the whole realm of insomnias due to mentality—worry, overwork, overexcitement, grief, etc.—the most popular remedy has been the bromides. Their efficacy has been marred by their deleterious effect upon the digestion and their depressing action on the vitality. The new alkaloid solanine affords all the benefits of the bromides with so little of their disadvantages that they are negligible. If the bromide inhibition of the sexual function be desirable this may be better accomplished by the use of gelseminine. Bromides will destroy the sexual capacity, leaving desire unaffected; gelseminine checks unruly desire without impairing power.

But in all this group of insomnias an elegant, effective and harmless remedy is found in veronal, which seems destined to supplant the entire group from chloral down. With such remedies for insomnia, we repeat, how can anybody speak of morphine!

3. Morphine certainly checks diarrhal and dysenteric discharges—and some of us have possibly witnessed the death of such patients after opiates had completely stopped the fluxes. Irritation of the bowels is now so generally looked upon as proof of the presence of an irritant, which is to be gotten rid of, that even in Asiatic cholera there is a constant recurrence of the advice to use laxatives, despite the fully proved fatality of the treatment, in this one malady alone. Morphine would be effective in all the choleraic group, were it not that atropine is so much more so.

The choleraic outbreak is an excessive manifestation of pneumogastric activity, and atropine has no rival as a sedative of the vagus. A hypodermic of this potent alkaloid needs no addition of morphine to control the choleraic symptom-complex in cholera asiatica, cholera morbus, or cholera infantum. In the latter malady morphine is, next to milk, the most dangerous substance that can be given to the child. The indication is to moderate vagus hyperesthesia, and to empty and disinfect the alimentary canal, rather than to stop the discharges; and even if it be advisable to moderate these, narcotism is not the way to do it. Narcotism is remarkably quick to supervene here, with moderate doses of an opiate, hot saline enemas, silver nitrate (1 grain to 8 ounces water), or with bismuth subnitrate suspended, are much better remedies in every way, and not at all dangerous.

In no other form of diarrhea is morphine indicated. Mild laxatives, rhubarb, salines, oil, should be employed to clear away irritating substances, and hot enemas to aid this object and sooth the irritation. If astringents are employed they should be antiseptic, like resorcin, salol, or the phenolsulphonates.

In dysenteries, amebic and otherwise, hot quinine flushes are more effective than any opiate. The only claim recently made for morphine in this group of diarrheal maladies has been that it is of use to check excited peristalsis. Here morphine is not as effective as atropine, however, and the temptation to hurry matters and secure present ease by a narcotic dose is apt to be too strong for patient or nurse.

Laura advises morphine in nervous erethism, hyperesthesias, and neuropathies in general, for the dolorific and spasmodic elements. But this was before the introduction of gelseminine, cicutine and solanine, which relieve these morbid conditions as effectively and promptly as does morphine, and without the peril of a drug-habit almost inevitable in such patients. In fact, the writer has for many years made it a rule never to allow to any neurotic a dose of any opiate whatsoever.

For the Relief of Cough

To relieve cough: First be sure you want to relieve the cough. If there is secretion it must be expelled. If dry and tough or scanty, emetine, apomorphine, lobelin, and the inhalation of steam offer an ample stock of useful remedies. To allay excessive irritation we have zinc cyanide, cannabis, and if any opiate is needed it should be codeine, a better remedy for this purpose than morphine. For the whole group of nervous coughs hyoscyamine is more effective than morphine or any opiate.

In lead colic, if, as Laura suggests, we employ hyoscyamine and strychnine, we have a remedial combination whose efficacy is not enhanced by the addition of morphine.

Nobody who is familiar with the values of gelseminine would think of employing morphine for the insomnia, restlessness, or other nervous symptoms attending febrile diseases. In asthma the relief from morphine is uncertain, temporary at best, and if it is at all satisfactory the formation of the morphine-habit is assured.

Morphine certainly gives temporary relief in cerebral anemia and in the affections due to that condition. It does not remove the anemia and is more than likely to aggravate the underlying cause. If this symptom requires direct medication we have a more powerful and less objectionable remedy in atropine.

The time has long passed when any opiate was employed in the treatment of alcoholism.

Looking on this malady as a toxemia, the elimination treatment has supplanted the narcotic completely. No hypnotic will induce sleep in these cases so surely as will a full dose of emetine, and the beneficial effect of the latter on the course of the disease is remarkable. The same may be said of the delirium of fevers—elimination, support, nutrition and circulatory regulators leave no place for morphine. It is unnecessary to give the very objectionable opiates for afterpains, when a grain or two of caulophyllin or a little gelseminine will quell them effectually. Few will be inclined to give morphine in albuminuria, despite the weighty authority of Huchard. Should a calmant be imperatively required it should be an eliminant like veratrine or gelseminine; or if cerebral anemia be marked, glonoin and hyoscyamine.

Glycosuria and Opiates

Possibly the strongest case for morphine may be found in the control it sometimes exerts over glycosuria. Here there is a curious lapsus in our knowledge. Experiment has shown that morphine and codeine are neither as effective as crude opium. Obviously, some other of the 26 or more activities entering into the chemistry of opium excels the two alkaloids named; but no experiments have ever been recorded to show which of the others is the remedy. At the best opium is only a palliative and of questionable utility—in the long run. The curative treatment of diabetes is fairly successful. Dietetic forms are numerous and the effect of morphine on the digestion is too disastrous to warrant its use as long as there is hope of cure.

When the physician was confined to the older forms of crude vegetable preparations, there was some reason for the general use of morphine. Since the genius of Merck has placed in our hands a long list of active principles, whose effects in health and in disease have been ascertained by the precise experimentation only possible with such remedies, we are enabled to apply our therapeutics in the treatment of disease with a precision impossible a generation ago. The art of fitting remedies to the aberrations from normal function presented clinically is one that is well worthy our most careful study. There is far more to clinical therapeutics than the careless prescribing of half a dozen drugs to every case, with a little "jollying" and the employment of a trained nurse. My plea is for more careful study of pathologic conditions as presented during life, and greater care in the application of remedies. In no other department of our art do such rich rewards await the investigator.

THERE is no life, however commonplace, that is not improved by doing the very best. Out of the most ordinary lives, from the coldest and most uninteresting surroundings, from the works of those who rest in unvisited tombs, come, indirectly perhaps, the great things of the world.

—F. W. White.

The Quack and the Laity

What quackery means, how it attracts the public, its dangers, a "dissection" of the men who make it pay, methods of some successful quacks, and some things which these things should teach us

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JOHN DOE should be as important a personality in the reflections of medical men as Richard Roe has been with the attorneys. John Doe and Richard Roe are worthy and respectable heads of families. They were paying patrons of the medical fraternity, but lately one of them, with his family, united with the Christian science church. The other, because of a series of misfortunes that in a few years decimated his family, has given up all church affiliations. There is a reason for both. In the one there was a failure of the physicians to be diplomatic enough to tell Mrs. Doe that her troubles were functional and mental. In the other a gallstone-case was found to be cancerous and a supposedly typhoid case was a fatal gonorrheal endocarditis, while two diphtheria-cases were not treated with antitoxin until too late.

Our Debt to Homeopath, Osteopath, et al.

These experiences are everyday occurrences and the practician of medicine alone is to blame for any lack of standing he may have in his community. Our neglect of psychologic principles has been the cause of the great success of the religiomedical movements.

The homeopath took advantage of our esthetic ignorance and temporarily put a dent in the allopathic pocketbook. The osteopath is teaching us that manipulation is something more than massage. As we have been forced by the homeopath to make palatability and minimum dosage a factor in our medical therapeutics, so Christian science forced us to the point of developing a worthy system of mental therapy. The osteopath should be given the credit of bringing to the front the subjects that are now taught in some of the larger schools in the department of kinesiotherapy. When the best in the teachings of the osteopath and of the Christian scientist is amalgamated with those of the regular practice of medicine, the individual practices of the former will be as rare and as impotent as those of the average secular physician. Our own profession is developing as lopsided enthusiasts as any cult or "pathy" has ever produced when we are forced to read in our journals a description of the treatment of coryza as advocated by one of our vaccine friends.

A "Dissection" of the Quack

We may turn to the quack and learn many lessons from him, but before considering the quack as an entity, let us dissect him to the extent that we can give him a definition. We all know what is said about him, but after most careful consideration he is entitled to the following analysis:

A quack is a practitioner of medicine or surgery who can do something that we do not do, or who can do it better than we can, or who can get more money for what he does than we do, and has to "do" those good whom he does "do," *because he is required to pay the regular rates for his advertising.*

One of my earliest experiences was to hear the immortal Senn answer a query sent down to him in class. The question was, "What do you think of the caustic treatment of cancer?" In his unequaled sarcasm he looked up with a fire in his eye like that of a bull who is shown a red rag, and his reply was this: "Think? It should only be thought of that it may be condemned, as well as the quacks who use it." Ten years after this I heard this same man, in the same

ampitheater, refer a case of epithelioma to his confrère, Dr. Hyde, for "caustic treatment," and the American Medical Association *Journal* now carries a quarter-page advertisement of a sanatorium for the exclusive treatment of cancer with the "echarrotic method."

What has not been said about the Battle Creek sanatorium, yet how many others there are who are now copying its methods. The same thing can be said of all the specialists, whether they advertise in the daily newspaper or the state medical journals. If there were as many quacks as there are reputable physicians, the quacks would make just as many mistakes. A St. Louis newspaper head-lines a rupture specialist who injected the femoral artery as well as the inguinal canal in treating a hernia. The February *Annals of Surgery* report a number of cases where serious functional and several fatal results followed accidents in simple herniotomies.

We occasionally hear of some community stirred up over the death of a woman following an abortion performed by a specialist bold enough to advertise his ability in that direction, yet there isn't a doctor of any experience but what could name a number of other women who are said to have died of heart failure, or hemorrhage, or typhoid fever, or appendicitis, but whose death we circumstantially know was due to some colleague's misdemeanors.

Facts About the Quack

Let us consider these facts about the quack: first, his ability; second, his personality; third, his success.

The average quack limits himself to a certain line of work. Advertising pays, and keeping everlastingly at it brings business. Business means opportunity, properly utilized this leads to a degree of perfection—given an average amount of skill or talent. The most expert man in treating superficial cancer that I have seen, and the best work in that line that I have known of, personally, was done by a man who was classed as a regular quack by everybody in his own community.

Again, the ligature operation for varicocele could not be done more skilfully than by a certain man who performs many of them every month, and who, by the way, "did" a friend of mine for $175.00, paid in advance. A rectal specialist in this state is receiving the patronage of some of our best citizens and getting their good money in the form of checks varying from fifty to five hundred dollars. He advertises to use no knife, but he does not say anything about the escharotics, the ligature methods, and those he cuts off with the scissors. He does good work, else his previous patients would not refer others to him. Certain hernias can be cured by injection, and one of my friends, a prominent member of the State society, is using this method on selected cases with the best results. He read a paper some time ago, reporting a series of cases which he had cured by this method.

Who is it that gets the good money to be had from genitourinary work? Our friend, the "ad-man," of course. Frankly, I consider the average practician who takes a case of gonorrhea and guarantees a cure for five or ten dollars more of a quack than the "ad-man" who "soaks them" for fifty to start with. Syphilitics gladly put up a hundred, and as much more as is necessary.

A Gold Mine in Chronic Diseases

A skilled diagnostician treating chronic diseases has a gold mine. Many cases of gallstone cure themselves or cease having the acute attacks after varying lengths of time. Bright's disease may require from fifteen to twenty years for its full development, especially the interstitial form. Eliminate the hepatic element and overcome the toxemias of constipation, and the majority of our stomach-patients get well. A careful examination of many neurasthenics will show a general enteroptosis, and the average case of movable or floating kidney will show the kidney to be merely an index of the general tissue relaxation rather than the source of the disability.

Considering the personality of the socalled quack, we must credit him with exhibiting a good front. He is egotistical and in his

egotism believes himself capable of much that is beyond his ability. There is an old saying that "a man can tell a lie so often that he himself finally believes it to be the truth." Our patients are impressed with this sort of thing and against their own judgment will place themselves in the hands of such a man.

The financial success of these people ultimately is a negative quantity. It is come easy, go easy; yet everyone of us would be willing to spend a great deal more than we do if our incomes could be increased. We lose much when we take it upon ourselves to condemn these men when their patients come to us. We will find it more profitable to say nothing lest our own future failures in treating the case might serve to bring our remarks back to us. When it comes to the fee-question, it is always policy to state that where good fees have been paid for questionable service they ought not to expect to pay less for good service. Another interesting fact is the ease with which fees are secured by those men in advance, while the home doctor waits for six months to as long as five years and feels lucky if he gets his pay then.

Getting Fees in Advance

This question of getting fees in advance, however, offers a psychologic proposition that we ignore. If a patient pays out of his pocket a hundred dollars to be cured of some malady, that hundred is going to be a wonderful inducement for that individual to carry out every minutest instruction given him. If he sees his family doctor once a week and pays him a dollar or two (or has it charged on the books), the patient is little or nothing out, and with the average chronic invalid the amount of assistance he gives in helping himself to get well is a negligible quantity.

To do away with all these things is an impossibility. So long as people live and suffer the reputable physician will have to contend with imposters and charlatans. To do away with the worst features of quackery is a matter of education, not condemnation.

Few physicians, let alone the laity, know of the various schemes the patent-medicine concerns are working to gain the confidence and much valuable information from the women of various cities. Under the pretext of giving health lectures, hygienic demonstrations and physical-culture training, a number of women are employed who go about in the various cities with letters of introduction and a good front, approach a few of the prominent club women and get in touch with the church people through the minister and minister's wife.

The affability of the lecturer usually secures for her an entrance into some of the women's clubs for a talk, and into the churches and certain homes where free lectures are given. These free lectures are followed by a personal canvass of the city to secure members for a class to whom a series of other lectures and demonstrations are given for a mere nominal admission-fee. During these personal interviews the woman who is being canvassed for membership to this pay-class is closely questioned as to all her past and present ailments and indispositions.

On leaving the house the lecturer and her secretary have secured ample notes on much of the private life and personal affairs of the woman interviewed, and this information is later transferred to a card-index form. These card-index forms are the most valuable asset a patent-medicine concern can possess, But not only in this manner is serviceable information secured, but numerous large concerns have local representatives who furnish information about many of the things that are commonly considered personal.

The Patent-Medicine Man's Mailing List

Every baby that comes to Joyville is worth ten cents to a certain individual, who weekly sends a report of these to a manufacturer of infant-foods. Every consumptive, every epileptic, every patient suffering with rheumatism or obesity, every patient that is ruptured or has any chronic disease or deformity, is daily and weekly the recipient of mail from these patent-medicine concerns. Frequently people wonder how

these companies get their information, and some people feel flattered that their ills should be known by those at a distance. A certain peddler of extracts in Joyville should be given credit for these people getting their mail so regularly. He presumes a small amount of medical knowledge and is solicitous of the health of each family he calls upon. If anyone is ill he inquires the nature of the illness, and any chronic case he learns about he adds to his list, forwarding the same periodically to a firm in Chicago who furnish the names of invalids to specialty companies at so much a hundred.

The same method is used by certain medical institutes to obtain victims among the young men. Every boy in town more than sixteen years of age receives mail from a Buffalo concern offering a cure for a condition that is not a disease but a physiologic process. Formerly it was through the daily papers that these concerns reached their dupes, but some states now prohibit the publication of the worst forms of these advertisements.

The socalled religious papers also have had a change of heart so that most of them now refuse all medical advertisements. This has forced these concerns to resort to personal solicitation, and companies such as the exploiters of viavi have made millions by judicious work among the women's clubs and various church organizations. In the case of the company named, in order to get into some churches, one of the members is appointed an agent and a certain percentage of the sales of the remedy goes to the church fund. No doubt this is as legitimate as selling any other commodity and giving a percentage of the profits to the church, but the church certainly is an institution that should not be used as a market place or a brokerage house.

One of the peculiar facts of the business is the ease with which the churches are secured for the furtherance of these affairs, and occasionally it has leaked out that the minister has been the recipient of the percentage. This is not to be wondered at, in the light that the religious papers have been among the worst offenders in the class of advertising they carried. One church paper recently inspected by me carried thirteen advertisements offering sure cures for such conditions as cancer, consumption, fits, rheumatism and other chronic conditions for which no certain cure has ever been discovered.

Anyone interested in a further insight into the various methods of these socalled medical institutions can secure a copy of a booklet called "The Great American Fraud," published by the American Medical Association. The facts of these things are probably known to but few people in any community and any physician who has the temerity to speak to them is usually said to have a grouch because business is bad. As long as people are possessed of their inherent superstitions they can be imposed upon by those who have the tongue of a liar and the ability of a grafter.

Voodooism is not limited to the negro race, for right now a certain cripple of Caucasian blood in an adjoining town is making a good living by rubbing sores, tumors and deformities with a turkey bone and muttering an unintelligible incantation at the same time. And so another neighboring town possesses a character called "Crazy Jake" who claims he is in communication with St. Luke and any sick person can be personally treated by St. Luke who comes to see him. This man has accumulated a respectable fortune in acting as St. Luke's mouthpiece—and he is not a negro.

These things are brought about not only by the superstition of the laity but also by their refusal to believe the truth when they are told by their physician that some conditions have no certain cure, that others are incurable, and that yet others need nothing but mental treatment because they are purely imaginary.

Some person in every city professes to cure cancer by applying a paste, the formula of which every doctor knows. They give a percentage to certain people for talking them up to anyone who has a suspicious pimple or sore. Several of my patients have visited them and have been treated for "cancer" when the condition they were treated

for never was nor ever would be a cancer. They also have treated several patients whom I knew had cancer and these all died.

Another woman is now canvassing the city, treating women at their homes, claiming to have what she calls an Indian stone, capable of removing and curing all forms of female troubles.

In spite of all this and all the unpleasantness which we see as the result of the work of ignorant pretenders and cure-all concerns, we must acknowledge that even the reputable profession could be given a house-cleaning with great benefit, moral, professional, and financial, to the good of the profession itself and the physical and financial welfare of the laity.

These facts should be presented to everyone of our patients, and before censuring them for what they may have done we should remember that the sick man considers us a friend in need, even though he never considers us in need of anything but friends.

The fees asked by the members of every profession vary according to the ability and training of the individual. A physician cannot charge the same now that he charged years ago when living expenses, office expenses and equipment cost but a small part of what they do today.

While a minimum standard has been made by the competent members of the profession, there are some physicians who, because of deficient skill and training, and lacking in the equipment demanded for diagnosis or treatment, conscientiously feel that their services are not worth the standard fees, and of course these men will charge less for their work.

It takes both time and money to make a good doctor.

It takes both time and equipment to make a diagnosis.

It takes equipment and service to secure desired results.

Those who appreciate the above facts most get the best service.

For the Beginning Doctor

By F. A. PITKIN, M. D.

Don't commit suicide if all the people in town do not come to you the first year.

Don't lose your temper when the pay fails to come in. Smile.

Don't kick the dog or cat if things go wrong at home.

Don't crowd the "good-pay" patients too hard, or they will leave you.

Don't feel bad when cantankerous patients quit. If they were being treated by the Angel Gabriel they would find fault with the expression of his face or the cut of his wings.

Don't waste time getting angry at the dead-beats. If you can't get anything else out of them get them to "holler" for you—loud!

Don't fail to make the most thorough examination of every patient and base your diagnosis on what you find—not on what the patient tells you.

Don't get discouraged. Ours is a noble profession, one demanding all your powers, yielding a fair income and commanding more and more of the respect of the community.

Don't keep at it too constantly. "All work and no play makes Jack a dull boy."

Never give up the ship!

The Action of Crotalin

A consideration of the physiologic action of rattlesnake venom when used as a therapeutic agent, especially in the treatment of various respiratory and nervous disorders, with the technic for its administration

By THOMAS J. MAYS, M. D., Philadelphia, Pennsylvania
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IT has long been the conviction of the writer that the chief and fundamental factor in the immediate causation of pulmonary consumption lies in a disturbance of that part of the nervous tract which is known as the respiratory center and its outgoing nerves, and that any agent which possesses the requisite power of influencing this nerve-area from a central direction will, in properly adjusted doses, tend to correct this lesion, and alleviate, if not cure, this disease. For this reason the stimulant action of strychnine and the counterstimulant influence of silver-nitrate injections over the vagi are measures which have been shown to possess an ameliorating influence on this disease. Although acting more from a peripheral than from a central standpoint, especially in the case of the latter, these agents still left to be supplied a centrifugally acting therapeutic force of adequate power in this particular field.

Physiologic Action

In searching for a remedy of this kind, the following considerations mainly induced the writer to take up the clinical investigation of rattlesnake venom, which for convenience is here denominated "crotalin."

First. His own experimental study of this substance, undertaken a number of years ago, led him to believe that it profoundly affects the cerebrospinal nervous system, and especially that part of the spinal cord which comprises the respiratory center and other closely allied centers.

Second. The very elaborate experiments and observations of Dr. A. J. Wall,* made under the auspices of the English Government in India, and the investigations of other authorities, demonstrate that the powerful snake venoms, such as those derived from the Colubrine family: naja tripudians (cobra-di-capello), bungarus fasciatus (banded krait), bungarus cœruleus (common krait), and those from the Viperine family: vipera Russeli (daboia), crotalus (American rattlesnake), all actively affect the structures of the upper part of the spinal cord that are included in the medulla oblongata.

Thus in forty-one experiments made by Wall and others on dogs, rabbits, cats, fowls, frogs, it is shown that death almost invariably comes through convulsions and paralysis of respiration; that as a rule the respiratory center is destroyed before the convulsive center, provided the venom is administered subcutaneously, while the reverse is true when the venom is inflicted by a bite; that cobra venom destroys the respiratory function very quickly; that daboia venom is more actively poisonous than cobra venom; that rattlesnake venom is far less poisonous than either cobra or daboia venom; that bloody diarrhea and other bloody discharges are frequent concomitants in animals that are bitten by daboia snakes, but are not often present when daboia poison is given subcutaneously, and are practically absent in cobra or crotalin poisoning, except late in the process; and that the activity of cobra poison is impaired when heated, and destroyed by being heated beyond the boiling point, and crotalus venom becomes inert when heated to 80° and 85°C.

Action of Cobra Venom in Man

In man, according to Wall, cobra venom produces the following characteristic symp-

*"India Snake Poisons." W. H. Allen & Co., London, 1883.

toms, which, though more intense, are largely representative of crotalin or rattlesnake poisoning: a feeling of intoxication, drooping of eyelids, loss of power in legs and in arms, staggering gait, inability to walk or stand without support, profuse salivation, paralysis of tongue and larynx, embarrassed breathing, inability to swallow, general paralysis, twitching in limbs, lessening of respiration-rate, and finally arrest of breathing, after which the heart ceases to beat.

This authority lays special stress on the fact that cobra poisoning bears a striking analogy to glossolaryngeal paralysis, and associates both processes with paralysis of the roots of the vagus, the spinal accessory, and the hypoglossal nerves; furthermore, he states that the resemblance does not end here. He says:

"In both diseases the respiration becomes feebler and feebler, and the victim at last dies suffocated. In other words, the paralyzing poison in one case and the lesion in the other have invaded the respiratory nucleus so near to the centers which they have already destroyed, and have thus rendered the respiratory act difficult and at last impossible; and though no doubt other parts of the nervous system suffer, it is evident that cobra poison has a special affinity for acting on the respiratory center and those other ganglia allied to it in the medulla oblongata which are in connection with the vagus, the spinal accessory and the hypoglossal nerves, and that it is directly to this destructive action that we have to attribute death in most cases of cobra poisoning."

Pharmacologically, crotalin is closely allied to the action of the cyanide group. In fact, it was partly due to a study of the action of the latter that the writer was led to investigate the clinical properties of rattlesnake venom. By comparison it will be seen that the following physiologic effects which are produced by dilute hydrocyanic acid have their exact counterpart in snake poisoning. In animals: difficult breathing, giddiness, spasm, convulsions, and death through respiratory paralysis and convulsions. In man: laborious respiration, dyspnea, constriction of chest, palpitation of heart, loss of consciousness, convulsions, opisthotonos, and death through dyspnea and respiratory arrest.

Description and Chemistry of Crotalin

Crotalin is the dry, yellowish, scaly, granular residue of the evaporated salivary secretion of the American rattlesnake. The secretion itself, as it is forced from the poison-gland, is an opalescent, yellow-whitish fluid of about the same consistency as human saliva, having a bitter taste, a slightly acid reaction, and a specific gravity varying from 1.038 to 1.058. The dried venom, or crotalin, has a neutral reaction, and is soluble in water and glycerin, and possesses all the physiologic properties of the fluid secretion. According to Dr. Armstrong, it has the following percentage composition: Carbon, 45.76; nitrogen, 14.30; hydrogen, 6.60; sulphur, 2.50.

Assuming that nitrogen contributes largely to the activity of our therapeutic forces, and judging crotalin from the standpoint of its analogous action to hydrocyanic acid, which contains 51.83 percent of this element, it is quite probable that in the foregoing formula the amount of nitrogen is largely underestimated.

Dosage of Crotalin

After administering not less than 600 hypodermic injections of crotalin, the writer concludes that 1-100 grain may be considered the average dose, to be repeated once a week, although it is often advisable to begin with 1-200 grain or even a smaller amount; and it is essential to increase the dose to 1-50 grain or even more, and repeat it at more frequent intervals in cases where quite a number of injections have been made, as in those where a decided impression is to be made at the very outset of treatment.

The following formula has been employed in making a suitable solution for hypodermic use:

Crotalini	gr. 1
Glycerini	m. 100
Aquæ destillatæ	m. 400

Of this 5 minims represent 1-100 grain, and 2 1-2 minims represent 1-200 grain of

crotalin. The solution should be kept in a blue vial.

The hypodermic administration of crotalin may be reinforced by giving it by mouth in accordance with the following:

Crotalini .....gr. 1-4
Glycerini .....fl.dr. 2
Aquæ menthæ pip.....fl.dr. 30

Dose: One to two teaspoonfuls four times a day.

Crotalin is also available in gr. 1-100 and gr. 1-200 hypodermic tablets, which enterprising manufacturers have placed on the market, and this is the most practical form in which the drug may be given.

Method of Administration

The back of the forearm has been selected as the site for the hypodermic administration of the drug, although the writer knows no reason why the upper arm or shoulder or back in close proximity to the neck should not be utilized. The needle is well introduced through the skin and underlying fascia, and, in order to avoid throwing the solution directly into a blood-vessel, it is important to withdraw the needle a very short distance before the injection is made.

Local Effects of Crotalin Injection

The immediate local effects after a hypodermic injection of crotalin are a burning, stinging pain at the seat of injection, with generally tingling and numbness along the course of the ulnar nerve or a darting sensation toward the shoulder. The pain is not severe and of short duration, as can be attested by the writer who has experimented on his own arm. In the course of an hour or two considerable edematous swelling radiates from the injected spot, sometimes extending as far as the wrist and the elbow, especially in first-injection cases. Neither the pain nor the swelling have been excessive, nor has an abscess or a serious complication arisen in the experience of the writer. Among the phthisical, however, there is a great difference in the local reaction. Far-advanced patients are much less susceptible than in more recent or incipient cases, the former tolerating doses from 1-100 to 1-75 grain, and even 1-50 grain, while the latter generally respond readily to doses of from 1-150 to 1-200 grain. If excessive edema should occur, the application to the part of cloths well moistened with a saturated solution of magnesium sulphate will alleviate it.

Therapeutic Action

In a previous article* the writer reports the condensed history of 15 cases of phthisis: 1 each of acute bronchitis, acute and chronic pneumonia; 2 of chronic bronchitis; 5 of asthma; 1 each of asthma and neuralgia of the nasal nerve; chronic neuralgia of the second branch of the fifth nerve, cervicobrachial neuralgia, and incontinence of urine associated with multiple sclerosis of the cord, and it is his desire here to review the influence of crotalin on these cases, first, on the most prominent symptoms of the respiratory disorders; second, that on the same of the nervous affections; and, finally, to add some new comments on epilepsy, etc., in which crotalin has also been administered.

Cough and Expectoration

These two symptoms, which always form a very harassing feature in every case of phthisis and chronic bronchitis, almost without exception, yielded readily to the action of this drug, whether administered subacutaneously or internally—or best, by a combination of both methods. In three of the reported cases which had already advanced beyond the reach of permanent help when treatment was begun, these symptoms not only diminished very rapidly but were reduced to a minimum. In one case the patient who was afflicted with acute phthisis (and who made an apparently permanent recovery although a small cavity exists in the right infraclavicular region), had a severe spasmodic cough and which nearly always provoked vomiting, was immediately benefited by a 5-minim hypodermic injection of crotalin solution. The same effects were obtained in an old case of

*"The Therapeutic Action of Rattlesnake Venom in Pulmonary Consumption, Acute and Chronic Bronchitis, etc., and in Some Well-recognized Neuroses."—*The Boston Medical and Surgical Journal*, April 15, 1909, page 481.

chronic rheumatic bronchitis with profuse yellow expectoration and occasional hemoptysis, which had been under the care of the writer for more than five years and on which no more than a very transient impression could be made with all the previously essayed remedies.

Laryngeal and Pharyngeal Symptoms

Embarrassment of the vocal organs and of swallowing are, as is well known, always a serious complication of all forms of pulmonary disease. Weakness of the voice, hoarseness, pain in the larynx, especially when talking, difficulty in swallowing, have been improved and in many cases entirely abated by the use of crotalin. Painfulness in the larynx and throat, to the degree of producing inability to eat, was strongly pronounced in two of the hopelessly advanced cases, and was speedily relieved by the daily injection of 1-100 grain of crotalin solution. In one of the cases, when the injections were omitted for five days, owing to the writer's absence, these symptoms returned with full intensity. However, they were again subdued by the injections in the course of four days, and were held in abeyance by the same until finally the patient was removed to the seashore and no longer received the injections, although the internal administration of the drug was continued. After this the troublesome conditions became as active as ever, and probably were the indirect cause of his death.

Hemoptysis

In the few cases in which this symptom manifested itself to any great extent the effects of the remedy were altogether satisfactory. The first hypodermic dose that was ever given of crotalin for clinical purpose, in the writer's experience, was administered to a colored adult who suffered from advanced syphilitic phthisis, associated with persistent hemoptysis, He had been treated without avail during the preceding two months, having received, during this time, the iodides, mercury and other antisyphilitics. After the crotalin had been given two or three times, the blood spitting ceased and he improved in every way.

In one case the crotalin was given hypodermically during the menstrual period, and it seemed to have incited blood spitting, and pending further knowledge of its action in relation to this function, it is advisable not to use it at all in this form during menstruation. In a case of acute pneumonia, complicated with hemorrhage, the bleeding stopped promptly after the first injection.

Physical Signs

Crotalin has quite a marked influence on many of the physical signs of phthisis and of other lung diseases, notably on those of auscultation. The disappearance of these signs was demonstrated so often that its meaning could hardly be misunderstood.

Fever

That crotalin reduces the fever of phthisis seems evident enough. How this is brought about is another question! It does not, however, produce that abrupt depression of temperature which is characteristic of the action of quinine, phenacetin, acetanilid, cold, etc. In one of the severest cases in which a complete record exists, the evening temperature on the first observation day was 104°F.; after that, for the first week the average evening temperature was 102°F., for the second week 100.8°F., for the third 100.3°F., for the fourth 100.7°F., for the fifth 99.5°F., for the sixth 99.2°F., for the seventh 99.4°F., and for the eighth week 98.5°F. In other cases, in which the temperature was taken irregularly, a similar gradual reduction was observed.

Weight and Strength

Sudden and great gain in weight has not been observed in any of the cases. It is true that a gain occurs in this respect, but in no instance has this gone to the extent which other observers, as well as the writer, have obtained from other forms of treatment. All the improvement in symptoms and physical signs above noted have gone on for weeks without a greater gain than five or seven pounds. As a compensation for this, however, there appears to be a decided increase in strength from the very beginning of treat-

ment. This has been so evident and so constant, that it seemed almost anomalous in the absence of a concomitant increase in flesh.

Acute Pneumonia

Special attention must be drawn to the action of crotalin in the treatment of acute pneumonia. The writer had the satisfaction of testing its action in a small number of such cases, and, while an ardent believer in the efficacy of ice applications in this disease, he has frequently been made to feel that the ice does not supply all the therapeutic desiderata.

There are cases in which, after the ice is applied, everything is smooth sailing until the approach of the seventh, eighth and ninth day, even after the temperature and the local lesion are apparently under control, and the crisis is anxiously awaited. The patient is perhaps more or less drowsy, and at times delirious, the temperature is less steady and may rise again; the tongue is dry and covered with a thick, black, parched and cracked fur; the respirations are more frequent than a few days before; the costal breathing is being displaced by a rather labored diaphragmatic movement; there is very little expectoration, although there are more liquid râles in the chest than a few hours ago, and the lungs are being swamped by their own secretion. The patient's respiratory apparatus is becoming exhausted, and he is gradually giving way and sinking under it.

It is in cases of this kind that the writer has seen the greatest benefit promptly accruing from the hypodermic administration of 10 minims of crotalin (gr. 1-50) solution, followed by five more in the course of ten or fifteen hours. The crotalin bridges a crisis in the course of acute pneumonia which, according to the experience of the writer, crdinarily proves fatal in the great majority of instances.

Asthma

That crotalin exerts its therapeutic action in virtue of its influence on the respiratory center is further confirmed by its beneficial effect in asthma. This disease is, as a rule, unquestionably due to a lesion in the above-named center, and the writer is able to bear testimony that, according to his observations, there are very few cases of this disease which may not be promptly controlled by this agent. Moreover, the favorable action of crotalin in asthma also paves the way for suspecting that it has an alleviating control in epilepsy. For both asthma and epilepsy are convulsive disorders—the one of the respiratory, and the other of the general muscular apparatus.

The center which coordinates the respiratory movements and that which presides over the general muscular system are in close touch with one another and form a very important alliance. For, aside from the facts that asthma and epilepsy have many symptoms in common, that the respiratory function is always seriously affected in every fit of epilepsy, and that the two diseases occasionally alternate the one with the other in the same individual, there is strong reason for believing that one may be the equivalent of the other.

Hay-Asthma or Hay-Fever

Hay-fever is unquestionably a stubborn neurosis of the respiratory nervous system, and it is amenable to but very few remedies. The first case of this kind in which crotalin was tried was an adult who had regularly recurring attacks every fall and spring. A hypodermic injection of 1-200 grain relieved him very promptly. The drug, in the same dose, was tested in other cases with the same effect.

Chronic Spasmodic Cough

There are a greater number of cases of severe persistent cough, without any discoverable lesion in the respiratory organs, than there are of physical lesions in the latter without cough, and at the same time it may be stated that the former are generally more rebellious to treatment. The following abstract gives a typical example of this class of affections:

The woman, aged 32, had a severe spasmodic cough with very little expectoration for nearly a whole year, and which resisted all local and general treatment. The spells

were ushered in by violent sneezing, accompanied by simulated whooping remarkably like true pertussis, and occurred with their greatest severity in the forenoon and at night as soon as her head touched the pillow. Sometimes these attacks were associated with shortness of breath at night, which necessitated her sitting up in bed. She had a catarrhal mucous discharge from both nostrils, and the right nasal passage frequently closed up during these spells. Her sense of smell was gone, she was tired and exhausted all the time, was unable to eat much, but had lost very little, if any, flesh. She received 1-200 grain of crotalin hypodermically once a week, and improved after the first injection, and in less than a month she was practically relieved of her trouble.

Neuralgia

In the few cases of neuralgia in which crotalin has been administered, the effects were remarkably good. This was notably true in tic douleureux of the second branch of the trigeminal nerve. The patient had suffered more or less for two years, and latterly it had become very severe. The nerve had been exposed and its sheath injected with osmic acid, he had received all the approved medication, and finally large doses of morphine, but all without relief. In September, 1908, he was given two injections of crotalin, on two separate days, and since then he has been entirely free from pain, except a slight return on the last day of 1908, which was removed by a single dose of the same agent.

In sciatica and brachialgia this agent has shown itself equally efficacious in the hands of the writer.

Myalgia of Back, or Lumbago

An affection which is generally known as muscular rheumatism, and has rightly been defined as pain produced in a muscle, or a set of muscles which are engaged in maintaining the erect posture of the spinal column, and is usually found in cobblers, tailors; carpenters, miners, laborers, and others accustomed to work in a bent position.

The first case in which crotalin was injected was a carpenter who had suffered severely from this affection for three or four years off and on, and to whose back all sorts of plasters, blisters, electricity, etc., had been applied without avail. He improved at once directly after the first injection of 1-100 grain of crotalin on the right side of the spine where the most severe pain was located, and in a few days he returned for another dose to be injected on the other side, where some pain still remained. In addition to the pain in the back, the man also had pain along the crural and sciatic nerves, all of which disappeared simultaneously after the first injection. The second dose relieved him entirely, and he now says he feels like another individual and is able to work with pleasure. I have administered crotalin in other cases of the same kind and with the same good effects.

Epilepsy

That crotalin influences the course and severity of the paroxysms of epilepsy the writer is fully convinced, but owing to a too-limited experience, both in time and in number of cases, he is not able to speak of the permanent efficacy of this drug in this disease. In some cases it has been found to change the form of this disease from a grand-mal to a petit-mal, and in others the reverse followed. It generally ameliorates, if it does not check, both forms in a comparatively short time. It seems to have improved the mental condition, the physical vigor and the patient's weight from the outset of treatment in every case that came under the eye of the writer.

So far it appears that in very severe cases the best results are obtained when the crotalin injections are combined with small doses of the bromides (5 to 10 grains four times a day) in the beginning, and which, in a short time, are gradually diminished, and finally withdrawn altogether. This course was carried out in a case in which 160 major attacks had occurred during twenty-nine days previous to the crotalin injections. The bromides which this man had taken were continued in small doses, and gradually diminished in quantity, while crotalin was injected two and three times a

week in varying doses from 1-100 to 1-200 of a grain. The number of attacks became less, and were replaced by petit-mal attacks, which finally ceased, and failed to reappear during seventy-seven days, when five minor attacks developed in a day. Up to the present writing—the space of one month—no further attacks have occurred.

One difficulty in getting the best results from crotalin in the treatment of epilepsy is its proper dosage. It is certain to aggravate the paroxysms when given in too large doses, and the writer believes that if the question of dosage is fully worked out, crotalin will form a valuable auxiliary to the treatment of this desperate disease.

Multiple Sclerosis

The reported case of multiple sclerosis with incontinence of urine is still improving, has gained in the control of his legs, and although unable to walk without support is able to stand unsupported, something which he was incapable of doing for several years before he received the crotalin. The frequent accidental falls which he sustained while attempting to walk, before the crotalin injections, have entirely ceased. He continues to have the complete control over his urinary flow which the injection of the crotalin brought about at the very outset of the treatment.

Conclusion

Concerning the great potency and wide applicability of crotalin there can be no doubt in the mind of anyone who has become reasonably familiar with its action; and feeling very confident that the voice of the profession is the only criterion by which the value of matters therapeutic may be judged, the writer takes pleasure in submitting the above detailed experience to the consideration of that body of men, in order that its useful points may be worked out on as large a scale as possible.

Diagnosis and Treatment of Syphilis

In no town in America, considering its size, are so many cases of this disease treated, as in Hot Springs. A local physician who has had large experience gives his methods

By G. ALLISON HINTON, M. D., Hot Springs, Arkansas

THE writer, during the last ten years, has been located at Hot Springs, Arkansas, and during that time has treated about 5000 cases of syphilis in its various stages and its numerous forms of sequelas. The diagnosis and treatment of syphilis can be studied here perhaps better than anywhere else in the country. The early diagnosis of syphilis is important from the clinician's standpoint because he has learned that the sooner antispirillum treatment is begun, the less damage is done. Unfortunately, the differential diagnosis of the Hunterian chancre from the soft chancre is difficult in many cases. Not only must it be differentiated from chancroid, but from epithelioma, gumma or relapsing chancre, psoriasis, eczema, lupus, etc.

Every textbook covering the subject of syphilis gives lucid differential points between all these, but after all is said, the fact is, that soft and hard chancres occur simultaneously, that Hunterian chancres occur with and are concealed by the inflammation accompanying gonorrhea, and phimosis may conceal the growth, making diagnosis impossible at times.

The principal marked signs in syphilitic primary lesions that I depend upon more than any other and which give to me the excuse to begin specific treatment are the slowness of onset even after its first appearance, the gradual proliferation of connective tissue presenting the typical induration, and absence of tendency to heal without antisyphilitic treatment.

I know most authors today advise waiting for the secondary lesions, but these may not appear for several months, and in the meantime the spirochæta pallida is getting in its work and contaminating not only the blood but the nervous system, and perhaps affecting it so profoundly that ataxia or paresis may be the inevitable result. Better treat specifically a dozen patients who have not syphilis than fail to treat in due time the one that has it.

The treatment of syphilis in Hot Springs has become more or less routine because it is generally conceded that mercury is the only specific. When I came here to practise I came with a strong resolve to treat my cases without mercury, but had not been here six months until I had changed my opinion entirely. This is the same thing that will happen to any physician who is not prejudiced and who studies the subject carefully, and sees many cases.

Treatment of the Chancre

The primary chancre, if dry, needs no local treatment, if moist, ulcerated or soft, a mild antiseptic of iodine or boric acid; if the chancre is rapidly spreading, paint with pure carbolic acid or acid oil of mercury until the spreading stops. If the chancre is seen a few days after its appearance and is situated on the prepuce, excision by circumcision is the proper procedure. Many authorities contend that this does not in any way lessen the constitutional infection, but I believe this to be erroneous. If the chancre is the primary lesion from which and through which the spirillum gains entrance into the body, then limit the amount absorbed. I believe the severity of the attack depends, as in other diseases, on the amount of spirochætæ absorbed and the amount of toxemia produced by their growth in the system.

The secondary lesions of the skin as a rule require no treatment. Those of the mucous membrane are more painful and should be carefully watched. Usually, after the constitutional treatment has been begun, no local treatment will be required, but when the patches prevail and grow large they should be painted with a 25-percent solution of silver nitrate. One application usually is all that is required. The local treatment of papules, pustules, tubercles, bullous lesions, rupia and ecthyma is summed up in a few words: maintain them aseptic by preventing secondary infection.

The constitutional treatment should be begun as early as a diagnosis is made, and continued for two years. As soon as diagnosis of chancre is made, then the patient should be put on protoiodide of mercury, three times daily for six weeks. Usually at this time some secondary sign has occurred. If not, continue to treat the patient for one year, then discontinue for three months, and so on until the end of the second year. If no secondary symptoms have occurred during this time, you will be inclined to believe that the diagnosis was wrong and that the patient did not have syphilis. This small amount of mercury will not harm, and accompanied with iodides is eliminated day by day. The patient should be advised to take a hot bath each week.

Management of the Secondary Stage

If however the secondary lesions have manifested themselves, the glands are enlarged, the roseola (of a copper color) has appeared, and the mucous patches. Then more vigorous mercurial treatment must be resorted to, followed later by heroic iodide medication. It is this class of patients that see these Springs. Without doubt the same treatment can be given at home, but the patient will not attend to the treatment at home as he does here. In fact frequently patients will become negligent even here, when they have nothing to do but to attend to the treatment. If in the winter time, a patient living in the North can do much better here than at home on account of the warm weather, and can eliminate without danger of contracting colds. The claim that the Hot Springs water is better than any other water, in my opinion, is unfounded.

The administration of mercury in sufficient quantity to destroy a typical and well-grounded case of syphilis must be administered by inunction or hypodermic injection.

The many troubles confronting the introduction through the alimentary canal have not yet been satisfactorily solved.

The patient should have rubbed into his skin at least 6 ounces of blue ointment, 50-percent strength. This should be inuncted in amounts of 1-8 to 1-4 of an ounce daily until the whole is rubbed in. The attendent, with a rubber glove, should inunct the ointment in the back, abdomen and buttocks. A socalled mercury pad should be worn over the inuncted area. A sleeveless undershirt answers this purpose, the same shirt being worn throughout the course. The rubbing should take place each day immediately following the bath. The inuncting of mercury is necessarily empirical, as no one can tell how much of the mercury is absorbed; some skins absorbing more than others, so that the amount that reaches the blood in any given case is problematical. The rubber should rub fifteen minutes for 1-8 of an ounce and thirty minutes for 1-4 of an ounce. The vibrator is now being much used for this purpose instead of the hand of the colored man.

The hypodermic injection of mercury in various menstruums has developed rapidly, and surely is the better method of introducing it. In favor of this method is the absolute certainty of the quantity introduced into the blood, as the exact amount can be determined.

Next in its favor is the cleanliness of the process and the rapidity with which is it done appeals to many. Furthermore, the fact that injection can now be accomplished painlessly seems to remove the last objection and barrier to its general adoption as the rational therapeutic manner of introducing mercury.

I have used this latter method during the last three years on many patients, but only during the last six months have I found a painless compound which produces no abscesses. The prejudice in favor of rubbing mercury is well grounded and it will require years to root from the minds of physician and layman the superiority of the injection method. Preferably the bath should precede the injection, the temperature of the water being 100°F. The patient should remain in the bath from fifteen to twenty minutes and in the drying room the same length of time.

After the entire course of hypodermic injections, which should number twenty-four to forty, 1-8 grain injected daily or the entire rubbings, then for four consecutive days the vapor-bath, which produces extreme sweating, should be given, great care being taken that no drafts or any opportunity for contracting colds be given. Then the patient is ready to go home, having spent from four to eight weeks at the Springs.

The subsequent treatment consists of small doses of mercury with potassium iodide during the next two years, as outlined for the mild cases. A patient treated in this manner for two years, and who has refrained from the use of intoxicants, may feel sure that he is cured of syphilis and may safely marry and procreate.

The Tongue

By JAS. A. DeMOSS, M. D.

The tongue, what messages it tells
Of precious truth, so sacred, sweet,
Fresh from the soul's deep fount, where wells
Immortal thought, others to greet!

Or should untruth be thus conveyed,
And prove a witness false and vain,
Yet it, a marvel still, obeyed
The master mind which did it train.

Language, the beauteous art of speech,
The charming discourse, or the song,
Bring forth, the human thought in reach,
Tongue-gifts to help the world along.

The power of eloquence, and words
Of euphony articulate,
How oft the inner life hath stirred
When tongues a burning thought relate.

With passion's curse, thought's wondrous maze,
Aglow with love, ready is it
To pray, to curse, betimes to praise,
Or flatter vanity with wit.

How Do Alcoholic Liquors Affect the Human Organism?

There has been a complete revision of scientific opinion as to the action of alcohol upon the economy and its value in the treatment of disease. Dr. Stuver gives in this article a summary of the latest thought on the subject

By E. STUVER, M. D., Ph. D., Fort Collins, Colorado

Sir Benjamin Ward Richardson tells us that "from the stomach alcohol passes directly into the circulation, so in a few minutes it is swept through the entire system. If it be present in sufficient amount and strength, its eager desire for water will lead it to absorb moisture from the red blood-corpuscles, causing them to shrink, change their form, harden, and lose some of their ability to carry oxygen through tiny capillaries." ("Disease of Modern Life.")

This attraction of alcohol for water here mentioned, together with the fact that it coagulates albumin and forms a thin white film on the mucous membranes by acting on the albuminous elements of the secretions, and the peculiar ease with which it penetrates protoplasm (this substance can defend itself against most other poisons) suspends or destroys the action of the body and, as Dr. Lionel S. Beale tells us, "alcohol does not act as a food, it cuts short the life of rapidly growing cells or causes them to grow more slowly, thereby preventing their proper development and exerting a particularly injurious effect upon the young, retarding their growth, both physical and mental.

Effects on the Digestive and Assimilative Organs

There is a wide divergence of opinion as to the effects of alcohol on the digestive organs. Formerly it was almost universally believed by physicians that alcohol in moderate amounts aids digestion, but the careful, accurate and painstaking investigations of recent years have demonstrated the fallacy of that opinion, and at the present time the majority of physicians who have made a careful study of this subject are convinced that alcoholic beverages not only do no good but are positively injurious to digestion. "One tablespoonful of whisky reduces digestive activity more than 75 percent," say Drs. Chittenden and Mendel. "Nothing more effectually hinders digestion than alcohol," says Dr. Richardson.

"If much alcohol is taken into the system the gastric juice is so changed by its direct action, the digestion is arrested," asserts Dr. Bunge. "The idea of alcohol in any form being an aid to digestion is altogether fallacious and has brought disease and ruin to innumerable multitudes," is the verdict of Dr. C. H. Shepard.

Many similar expressions from the most celebrated physicians in the world might be given, but the above are enough to show that alcohol, even when given as a medicine should be used with as much care as strychnine, opium or any other poison, and not in the careless, indiscriminate way in which it has been in the past.

No physician should prescribe alcohol in any form without first having made a careful examination of the patient to find out whether it is the proper thing to use, and no person should any more think of taking whisky, brandy or other alcoholic liquor without such an examination than he would think of taking a dose of strychnine or arsenic.

From this impairment of digestion, caused by the use of alcohol, there naturally results a deficient supply of healthy food-material for enriching the blood and building up the tissues. All the cells and tissues of the body are surrounded by membranes through which the food or building material passes in to

nourish and strengthen the body, and through which broken-down and waste materials pass out and are gotten rid of. Alcohol, by thickening and shrinking these membranes, interferes with their proper action, and as a result *food* is kept from passing in and too much of the poisonous waste material is prevented from passing out and is thereby retained to set up all kinds of troubles.

Effect on the Muscular System

For ages the almost universal impression has been that alcohol gives muscular force; that it enables man to do more work, to undergo greater hardships, to withstand greater cold and heat, than he could without it. Accurate investigations with the dynamometer (an instrument used for measuring muscle-force) and other instruments of precision have, however, demonstrated the fallacy of this impression. As Dr. Bunge has very cogently said: "Thousands of experiments on large bodies of men have been made and have led to the result that in peace or in war, in heat, cold or rain, soldiers are better able to endure the fatigues of the most exhausting marches when they are not allowed any alcohol. A similar result is observed in the navies and on the thousands of commercial vessels belonging to England and America which put to sea without a drop of alcohol. Most whalers are manned by total abstainers. Arctic explorers endure the cold much better when they abstain from alcohol than when they use it even in moderation.

The great business interests of the country are beginning to appreciate the fact that alcohol unfits men for doing the best work. So convinced are they of this that many railroads and large manufacturing and mercantile establishments will neither employ nor retain in their employment persons addicted to the use of alcoholic beverages.

That alcohol lowers muscular force is very conclusively shown by the fact that those who engage in athletic sports must stop drinking if they expect to excel. No prize-fighter, ball-player, oarsman or any kind of athlete can keep up drinking habits without so injuring himself in a few years that he is relegated to the rear as a "back number." This is understood by all trainers and has expressed itself so strongly that even in beer-drinking Germany the favorite national beverage is being discredited by athletes. This practical acknowledgment that beer drinking hinders the best physical condition and the highest degree of athletic success would be significant in any country, but is especially so in Germany, the great beer-drinking country of the world.

Careful experiments made on a number of persons by Dr. J. H. Kellogg several years ago showed that muscular strength is diminished more than 30 percent by the use of alcohol, and the same author declares that nothing could be more absurd than the administration of mixtures containing alcohol when tonic effects are desired. The careful and elaborate experiments made on dogs by Prof. C. F. Hodge showed not only a marked diminution in muscular activity but a greatly lessened power of endurance on the part of the dogs that received alcohol.

Effect on the Special Senses

Careful experiments as well as everyday practical experience have proven the fact that alcohol reduces the power and functional activity of the special senses and so perverts the action of the nerve-centers and the nerves that correct impressions of external objects can not be obtained. The acuity of vision is lowered, the power of hearing reduced, the sense of smell blunted, and the taste so obtunded that fiery and even caustic liquids can be swallowed without wincing. When carried to the stage of complete narcotism the functions of the special senses are for the time being lost and those "gateways of the soul" which are given us for protection are closed, and the man, deprived of sensation, motion and power to see, hear, taste, smell or feel, lies before us a mere vegetating mass, with barely enough respiration and circulation to sustain life, and if the narcotism be carried too far these stop entirely and he dies.

But while alcohol retards digestion, impedes assimilation and excretion, reduces the oxygen-carrying power of the blood, and

hinders the nutrition of the cells and tissues of the whole body, still it is on the nervous system that its most far-reaching and harmful influences are exerted. Thus Dr. Norman Kerr writes as follows:

"Alcohol paralyzes the vasomotor nerves and thereby relaxes control over the vessels so that these dilate and allow more arterial blood to pass to the brain. With this superabundant supply of blood there is great activity of function. This is the stage of exhilaration, excitement, brilliancy, sometimes frenzy and delirium. Owing to the loss of the contractile power of the vessels the increased blood supply can not be returned to the veins from the brain with sufficient rapidity, and thus there is a block, causing impediment of the circulation, which ought to be free and unimpeded, to allow of duly aerated fresh arterial supplies. This is the stage of depression—of depression and collapse, when the brilliancy dies away, memory fades, speech is thickened, voluntary movement ceases, sensation is dulled and consciousness fails. This process frequently repeated sets up permanent tissue changes. The covering envelope is thickened and otherwise so injured that proper nutriment cannot be conveyed to the brain, and thus that organ is badly nourished. The shape of the brain-cell is altered," they degenerate and lose much of their power to convey impressions.

This degeneration of the brain and nerves leads not only to many diseases but also sadly impairs the intellectual and moral faculties.

Effects on the Mind

In view of the foregoing effects on the physical organization the question naturally arises, How does alcohol affect the mind; what influence does it exert on the immortal part of man?

If human experience and observation have incontrovertibly established any truth, I believe they have proven that alcohol dulls and perverts the perceptive powers, deranges the emotions, beclouds the intellect and inhibits and paralyzes the will. The will is always lessened in force and activity. The ability to determine between two or more alternatives, to resolve to act when action is necessary, no longer exists in full power, and the individual becomes vacillating, uncertain, the prey to various passions and to the influence of vicious counsels." (Hammond.) "The more highly intellectual faculties of the mind rarely escape being involved in the general disturbance caused by alcohol. The power of application, of appreciating the bearing of facts, of drawing distinctions, of exercising judgment aright, and even of comprehension, are all more or less impaired.

Dr. August Forel of Zuerich says: "The poisoning of the brain by alcohol is all-pervasive. We need not descend to the drunkard. In looking at the moderate drinkers we see that his sensibilities are less fine, he cares less for the strict truth, he is more negligent of the proprieties and less active mentally." Nor is this all, for under alcoholic influence the brain begins to think awry, it cannot think straight. The effect of alcohol on the mental processes is curious, for while it actually renders them much slower, the individual under its influences believes them to be much quicker than usual. (Brunton.) Indeed, experiments made at the University of Heidelberg show that the consumption of alcohol, whether in large or small doses, produces a tendency to paralysis of the mental faculties. (Adolph Baer.) And still many would excuse free indulgence in alcohol on the ground that it is necessary to arouse the mind to cause thought to flow freely, to stir latent genius into brilliant activity, to awaken the slumbering muse and snatch undying fame from Parnassean heights!

Stuff and nonsense! The genius that will not illuminate without alcohol would better be left to innocuous desuetude, to take its place with the "mute inglorious Miltons" of the past; and the muse whose celestial fire can only be fanned into active flame by means of whisky, brandy, or even champagne, is at best but a sorry jade and should be allowed to slumber on in peace. If the experience and investigations of the most eminent physiologists and thinkers are of any value, more long-continued arduous and

severe mental work can be accomplished without alcohol than when it is taken, even in small amounts.

Effect of Alcohol Drinking on the Moral Nature of Man

As pointed out before, alcohol blunts the finer sensibilities and dulls the moral perceptions so that the regard for truth, justice and the rights of others is greatly lessened. Indeed it is a matter of common observation that old habitués are entirely unreliable, and in many cases their most sacred pledges are utterly worthless. So thoroughly are they in the power of an insatiable appetite, and so absolutely are they enslaved by it, that they would violate their most solemn promises, yea, would even—if such a thing were possible—barter their immortal souls for a glass of the fiery draft. This, together with the fact that a large percentage of the crimes committed are directly or indirectly due to indulgence in alcoholic liquors, should lead to the most stringent measures to protect the children and youth of our land against their blighting influence.

Medical Practice Among the Indians

Interesting reminiscences of a physician who spent several years of his life at an Indian Agency, nearly thirty years ago. Diseases and accidents that he had to deal with—and some of his difficulties

By JAMES L. NEAVE, M. D., Dresden, Ohio

IN the September number of THE AMERICAN JOURNAL OF CLINICAL MEDICINE appears a very interesting article on medical practice among the American Indians, by Dr. Frank D. Patterson of Shurz, Nevada. It brought to my mind the fact that I, too, have had an interesting experience among these people and which may prove of some interest to readers of this journal.

It was my good fortune to act as agency physician at Fort Berthold, North Dakota, from 1878 to 1885, covering a period of seven years. The Indians I had under my charge were the Aricarees, Gros Ventres and Mandans, numbering about 1400 altogether. Naturally, I found conditions and surroundings entirely different from anything to which I had been accustomed, and medical practice differed to the same degree.

On my arrival I was met at the boat-landing by the agent and his wife, with a light open wagon, and my first introduction to the Indians was when an old man (Old Giant) climbed into the back of the wagon clothed in nothing but breeches and moccasins, with a bed-sheet thrown loosely about his shoulders and trailing out behind him in the breeze.

How the Indian Houses Were Built

I found my Indians living in a village, some houses built of logs while others were large affairs called "dirt lodges." These dirt lodges were built as follows:

Four heavy logs, fifteen feet in length, were set in form of a square eight or ten feet in diameter. Logs were laid on top of these, forming a square. Circling these central posts were placed upright shorter ones, some five feet high, with lighter logs laid horizontally on top, forming a circle fifty feet or more in diameter. Still lighter poles were leaned against this rim from the ground, and longer ones from the rim to the central square, leaving an irregular opening in the center where they did not meet. The entire surface thus formed was thickly covered with brush and this in turn with dirt, leaving the opening in the center of this roof. The fire-place, a large circle, was directly under this opening which formed the exit for the smoke that escaped after the entire interior was filled. Only one other

opening was in the side of the structure, which formed the doorway, and this was generally closed.

This lodge would be occupied by several families together with several horses and innumerable dogs. The beds were arranged around the edge, and whatever privacy there was was obtained by the use of calico curtains which were sometimes made use of. The doorway was just high enough to cause a man to strike his forehead when entering unless he "ducked." I learned the trick after a number of collisions that showed me stars that were not in the heavens; and the habit became so strong, that to this day I often unconsciously duck my head when going through a doorway, even one as high as a barn-door.

These dwellings were arranged with about as much regularity as would have been obtained could they have been built up in the clouds and then shaken down all at once, remaining just wherever they "lit." The village had occupied this place for many years and all the rubbish and filth that did not lie close to or in the houses was arranged just outside, forming an accumulation several feet deep. This description will explain the sanitary condition of affairs.

Sore eyes? Who wouldn't have sore eyes, living in smoke-filled houses indoors and in a dust- and germ-filled atmosphere outdoors? The cases were legion, and no improvement was obtained until I displaced the open fire-circle with cooking and heating stoves, and had the outside circle of accumulated filth raked up and burned. Yes, ophthalmic inflammation was common, and corneal opacities were common, and entire loss of the eyeball was not uncommon—and blue glasses were very much in evidence. Treatment was not effective; anyhow it was difficult, almost impossible in fact to induce any of the patients to make use of the remedies offered. Improved sanitary conditions helped to reduce the number of cases, that was all.

Consumption and Syphilis

Cases of consumption were in evidence. But underlying all these cases, and many others that came under my notice, was syphilis. Some of the most terrible examples I ever saw of the ravages of this disease occurred here among these people. In fact, as a community they seemed saturated with this disease. It did not always manifest itself sharply among the Indians themselves; but woe to the white man who made too free with the women. The chances were largely in favor of his getting a dose that he would remember the remainder of his days.

It seemed to me that any venereal disease originating from an Indian was aggravated when implanted in white soil. Gonorrhea would produce a flood of discharge. Eruptive troubles would be a trial to the sufferer. Alopecia would be permanent. Buboes, the very worst I ever saw in my life, were of Indian origin. It paid for a white man to be virtuous; if he stepped aside from the paths of rectitude he nearly always paid dearly for it. To illustrate: The military post that lay seventeen miles from the agency, when I first came to the scene, was very much visited by certain of our particularly easy-virtue squaws—and the soldiers were very free in their attentions to them. The officer in command wrote a sharp letter to our agent, demanding that he keep the squaws at home; his reason being that his command was in such a condition as to be unfit for duty. Half the men were in hospitals and the other half ought to have been.

Some Cases of Syphilis

A description of two or three cases of pronounced syphilis among these people will suffice to illustrate conditions. One was a middle-aged man, with his entire thigh riddled and honey-combed with sinuses, opening in twenty places, discharging a foul-smelling ichorous pus; the stench was so fearful that his own people put him in a hut by himself and made him stay there. I wished to open up the sinuses from above downward and attempt to heal the parts by cleanliness and free drainage. But an Indian, with all his stoicism, is dreadfully afraid of pain except under particular conditions, and so he refused absolutely to allow

treatment. I did, however, get a good deal of potassium iodide into him and he eventually got better.

Another case was that of a young girl about twelve years of age. All I know of her was that she had considerable discharge from the nostrils. I was called in to prescribe for a cough with which she was suffering. I noticed that her face looked pudgy and expressionless, the outline of the face having a bloated appearance. In about half an hour I returned with the desired medicine, but the girl was missing. I inquired for her, and a woman pointed out of the window. Looking, I noticed two women moving toward the graveyard, which was close by, dragging a blanket over the ground with a weight in it. It was my patient—dead, and they were removing the body for burial. The explanation given me was to the effect that the girl had a violent fit of coughing after I had left; that there was a gush of matter, apparently coming from eyes, nose and mouth; that the face had collapsed and the girl fell over dead. A case of pronounced disintegration of the facial bones, with all the cavities filled with pus

At another time I was called in to get a woman out of difficulty and fix her so she could ply her trade. To make a long story short, I found her vulva and anus completely surrounded by venereal warts, interfering with her means of livelihood. I removed them with scissors, under chloroform, and made the parts much more presentable. The hemorrhage was extremely free, but was controllable. And the warts that I picked up fairly filled a common fire-shovel such as used about the stove. This story isn't "hot air" either.

Syphilis certainly was a prevalent disease and modified almost every disease that I met with while at the agency. It was generally prudent when called upon to treat a case, to make sure to give potassium iodide, and then to add whatever other line seemed to be indicated. This statement is of course exaggerated, but I make it in order to illustrate just how saturated these people were with constitutional disease. It was common to see cases refuse to yield to treatment ordinarily indicated that would heal like magic when I administered an iodide; and during the years of my residence there I had thousands of cases to treat for one thing and another.

Making One's Word Good

When first I took charge the Indians distrusted me and my medicines, and used to expect me to taste every medicine before they would accept it. Fancy the combinations that I got into my stomach! I rebelled very soon, and refused such service, but I had won my start by at first complying with their wishes. My influence with my Indians became very strong, and I won their confidence first by always keeping my word with them, and held it by my success as physician.

This strict keeping of my word with them had its uncomfortable side, however, and I became very cautious in making promises to them—because I found that a promise once made, they expected the fulfilment absolutely, without regard to circumstances. Even though I became sick after having engaged to do a thing, and failed to keep my appointment accordingly—even though I should happen to die—under the same circumstances I would be a liar.

As an example of the effort I put forth to keep my word good: I had promised to visit a certain patient on the following day. That afternoon, while hurrying to make an emergency call, my horse stepped into a hole and fell, with myself underneath, giving me a fractured rib or so. Yet the next day, rather than be considered a liar, I rode a mile to visit the patient I had previously promised to see. I walked back, leading my horse. The pain caused by riding had become too unbearable for riding.

The emergency case that called for my hurried trip was surgical in character and may serve as the commencement of a surgical chapter in this narrative.

How Grief Is Expressed

Indians have a fashion of their own of expressing grief for the loss of members of the

family by death. A common way among the women is to slash or hack their own legs with a butcher-knife, from the knee down, and then wandering about for several days, exhibiting the bleeding limbs and howling a peculiar sing-song wail. I have seen a perfect network of shallow slashes, covering both legs of the mourner. The dress is torn off above the knees so as to make the exhibition perfect.

Another method of showing grief is by chopping off the first joint of the little finger with a butcher-knife. The finger is extended on some flat surface and chopped off by a blow with the butcher-knife. In the case I am describing the little finger had already been chopped off on some former occasion. This time the woman attempted to chop off another piece, but missed and cut off quite a length of the third finger instead. Then the fun began; two arteries got in their work and frantic efforts were made to stop the hemorrhage, but without success. As a last resort I was sent for.

When I arrived I found an interesting state of affairs. My patient was squatting on the floor, with the hand held out horizontally suspended by a looped cord attached to a beam overhead. Two ligatures had been tied about the wrist. Covering the fingers was a ball of coagulated blood the size of an orange, through which at various points the blood was oozing and dripping onto the floor. A woman was covering the drip on the floor with dry dirt, on the principle that hiding the blood from sight improved matters. I immediately put a tourniquet on the brachial artery, removed the clotted ball and then cut the ligatures that had been placed on the wrist. The Indians were greatly pleased that the hemorrhage had ceased. While they were jabbering their pleasure, I slyly loosened the screw of the tourniquet, and the blood flew for six feet, and the howl of dismay that those women let out was amusing—to me. I simply ligatured the arteries and dressed the stump once. That was all they desired.

Another woman showed her grief over the supposed death of a son by giving herself a slashing blow on the side of the head with a butcher-knife, also resulting in a cut artery and much loss of blood. When I arrived on the scene I found the woman seated, leaning forward, with her hair hanging on either side of her head and the blood running down both locks and dripping onto the ground. The Indian medicine-man was busily engaged washing the two tails of hair in an effort to keep the blood from dripping. The job was too much for him and he wished me to take charge of one side while he managed the other. That was all that I was to be permitted to do.

I told the assembled people that I could stop the bleeding, but that I must have entire charge of the case and handle it in my own way. When they refused permission, I then told them that I should put up my instruments and leave, but that if I passed through the doorway I should under no circumstances return. Just as I was about to pass out they hurriedly recalled me and surrendered the case to my care.

A little clipping of hair about the wound (which was a short one), a compress and bandage, and the job was satisfactorily completed. I fixed it up in as simple a manner as possible, on account of the charged condition of the atmosphere in that house. The Indian medicine-man had been forced out of the case by me, so all his chance for pay was lost and his prestige was hurt; and—well, he would have killed me if he had dared, and I knew it. I also knew that it was policy to do the work as expeditiously as possible and remove myself. If ever I saw hate and murder glitter in a pair of eyes, it was then and there. But I was not killed, and the patient made a complete recover.

At War with the Crees

At one time, while I was at the Agency one of our Indians was killed by Crees. Our Indians organized three war parties, in order to make reprisals. One of these got into a fight, and I became interested in results. They came upon a hunting party of Crees traveling with a lot of clumsy carts. The Crees were camped on the edge of a shallow lake, the ground rising like an amphitheater

from the shore. Our Indians showed themselves to be a war party, so the Crees immediately placed their carts in a semicircle, resting on the lake, and withdrew behind their line of defense. Two of our Indians rode inside the line to parley, and as they turned to leave one of them shot one of the Crees. The Crees instantly killed both of them. Then one of our half-breed Indians arrayed himself in "medicine" attire, and advancing down to the carts, touched all the wheels with his "medicine" stick. This was to render them unable to stop bullets. He returned without a shot being fired from the Crees because of a superstitious notion that a medicine-man must have immunity. At noon our Indians began the attack, riding their ponies rapidly to and fro in a half-circle, in front of the carts, and firing under their ponies' necks as they rode. During the battle the pony of Cherries-in-the-Mouth was stung by a bullet, became unmanageable and ran straight away from the carts, up the hill, exposing his rider who was shot twice through the arm, both shots smashing the bone. The fight was continued until nightfall. The next day our Indians kept up their attack until noon without eliciting a reply and then came away without daring to go down to see what they had accomplished. It was ascertained from other sources, however, that of the defenders seventeen had been killed, and one had crawled through the shallow water during the night and escaped. And our Indians came away discredited on account of not getting a single scalp. And there were seventeen lying behind those carts all ready to be taken. It was a sore spot to them for many a day afterward.

Some Bad Gunshot Wounds

When our Indians came home, I had an opportunity of doing something for the wounded—but not much. In a surgical sense, I had to stand back, but I was permitted to relieve suffering. One man was shot through the throat so I could look into his mouth and see daylight plainly. He recovered. One was shot through the lower part of the spine. He died. Cherries-in-the-Mouth was shot as already described. A piece of the humerus about 2 1-2 inches long was knocked out of line and lay at right angles with the shaft of the bone, the ends sticking out on both sides. I was not permitted to see the wound but might attend him as physician. When the nature of the wound had been explained to me and I was asked what I could do, I said I should resect the bone and perhaps leave him a useful arm. That suggestion ended my surgical case—they absolutely refused to let me touch the man.

Their own treatment was to take hold of the arm with both hands and with the thumbs work the broken fragment around into line, as best they could; and then without washing or cleanliness of any kind they wrapped the arm up with various pieces of anything handy—calico, flannel, old pieces of blanket, any old thing—until the arm was thoroughly bundled up. And thus they left it without ever changing anything until he actually, eventually, recovered. Not, however, before gangrene set in—the discoloration extending across the chest. The odor was fearful. Eventually the entire arm showed up much withered and with the fingers constantly beating a nervous tattoo —they were never still, certainly not for full two years afterward. This condition made him an important man ever after, because he was the fortunate possessor of a medicine-arm.

A Case of Frozen Feet

I was witness to as fine an illustration of the recuperative surgical powers of nature as it is possible to imagine. Seventeen miles from the Agency, where there had formerly been a military post, the Government had established a boarding school for the Indian children of our Agency. This school was filled with children of all ages, drawn from the families of our Indians. The distance from their homes was not great enough to prevent homesickness from resulting in truancy, and often children supposed to be at school turned up at home.

One winter, when the thermometer showed 30 degrees below zero, several girls started

home to the village afoot, wearing light buckskin moccasins which covered the feet about as much as a slipper. Their plan was to reach a hut some three or four miles out from the school, where an Indian was supposed to be camping, and then to get him to carry them home in his wagon. When they reached there the hut was empty and fireless—the Indian gone. They were forced to turn back at once and return to the school. They entered without being noticed and went to bed. In the morning they were missed from the breakfast table and were found in the living room trying to warm their feet and crying with the pain. The feet of all of them were bad enough, but this article concerns only the worst one.

Following the line of the top of the moccasin the feet of these youngsters were frozen solid, and death of all these parts followed. Gangrene resulted, the line of demarcation following the line of the top of the moccasin, along both sides of the feet, across the top, and back around the heels. The case progressed from bad to worse, the soft tissues sloughing off until the metatarsal bones and the bones of the toes protruded, blackened and dry, and I was permitted to twist them out one by one as they loosened. The feet healed nicely. Toward the last, the blackened surface of the end of the os calcis on each foot, about the size of a silver quarter, remained exposed. This shell dropped off, leaving a granulating surface exposed which finally healed over completely.

Why didn't I employ surgical means in the handling of this case? Well, I did venture just once, and then I gave my word not to interfere that way again. I placed the patient under chloroform, and then leaning over so as to shield what I was doing I severed the great toe of the foot at the tarso-metatarsal articulation, using my scissors. There was a sudden commotion among the relatives; a halt was called very emphatically, an exposed revolver accentuating the call-down. So long as I had severed the joint, I was permitted to remove that toe; but care was taken that no further interference of that kind was employed. Practice among the Indians has its limitations.

(*To be continued*)

A Country Doctor's Life in Hawaii

By HIS WIFE

Dr. E. S. Goodhue is one of the most prominent physicians in Hawaii. He is known not only as a physician of unusual ability and an authority on tropical diseases, but as an author and poet. This home life of the Doctor so well described by his wife is of special interest

II

THE first part of our stay during the second period was spoiled by our residence in the house of an acquaintance who was not temperamentally congenial to anybody, including himself. My husband's equable temper, with his unfailing charity and gentleness toward all, permitted of our stay here for a year, but we at last secured a cottage near by, which proved to be esthetically and materially to our taste. Here our daughter was born.

The extension of large sugar-interests in an adjoining district induced my husband to ask his brother, Dr. W. J. Goodhue, to come to Hawaii, which he did in the latter part of 1900, taking charge of the McBryde Sugar Company's work, and securing the erection of a large hospital, which he named Mariam Emerson, for his mother. In April, 1902, my husband was asked to take charge of the Molokai Leper Settlement, a position he declined, but it was given to his brother, now the medical superintendent of the colony—a man who has made a great name by his discoveries, and earnest, conscientious labors among the lepers of Molokai, and who is little less than adored by the afflicted population there. He has revolutionized the surgical and therapeutic methods, and

has been instrumental in securing for the settlement great and needed improvements.

With all his work outside, my husband's time is so arranged by his care and method that he has been able to give some of it to reading, writing, play with the children, outings about the island, and so on. He reads aloud to us, writes papers for societies and medical publications, and at odd moments works in his garden, which he has always loved. Those who have read his verse, and prose too, have some idea of his intense and devoted love for nature, an unaffected, boyish delight in mountain, stream, sky and sea, and the eternal woods. Indeed, these are the stimulants which have kept him up through many trying experiences, renewed his spirit, and freshened his "grip on life." For as cares are sure to come with the advancing years of life, my husband, with all his fairness and unfailing endeavor to "justly do his part," met obstacles much in the way of happiness.

The manager of the plantation where he was a physician, a drunken, ignorant man, became suddenly enraged at my husband for some fancied reference to his wife in a story my husband had written. This was entitled "My Trinity," and appeared in *How to Live*, the magazine edited and published in Chicago by Dr. G. F. Butler. This man kept up his annoyances for nearly a year, when my husband disposed of his interests and decided to take a rest for a year or so. It was during our last stay in Koloa that Mr. McKinley, then President, sent a commissioner of labor to Hawaii to investigate matters, and asked him to find my husband and talk the matter of plantation labor over with him. This commissioner was told that my husband had gone from Kauai, and we did not know of the deception until we had reached the coast.

When his brother left for Molokai, my husband took his work in addition to his own: two government districts, four hospitals, and two sugar-plantations, with a large private practice. There was an immense lot of surgical work to do and attention to give, day and night, to patients of many nationalities. Some valuable monographs on surgery were written and published during this period, one on dysentery, which received the praises of a distinguished physician.

In January, 1904, we left Koloa, where we had spent many a pleasant day, but where there remained little to induce a genial, companionable person to prolong his stay.

"The Quartette"

We had intended going to England for a year, were packed for the trip, and my husband had matriculated at the London School of Tropical Medicine. I forgot to mention that before leaving, much to my husband's surprise, the Governor sent him a commission as Judge of the Court of Tax Appeals, expressing confidence in his "ability, wisdom and integrity." This was declined. "I think I have enough judicial spirit in this case to refuse to serve," he said to me, "I have always been afraid of undertaking what I am not positive I could do well. Doctors are generally poor fish

out of their own waters." In this I think my husband errs on the conservative side. For instance, in public speaking he has imagined that he has no gift, but on each occasion, which of late have been frequent, where he has been called upon to speak, he has been at home. The matter has been pertinent and the delivery effective. He always tells the story of his experience when

Dr. Goodhue's daughter

as a mere boy he was made president of the Riverside Prohibition Club (he is a pronounced republican), and how embarrassed he used to feel when he had to introduce their speakers to audiences.

We did not go to England, nor even across the sea which separates us from California. When we reached Honolulu there was a vacancy over on Hawaii, in a district which we had often regarded as the place for a home, so my husband accepted the position and we came over on the first boat. Of all the places we had so far seen this pleased us best; the loveliest bit of land on a mountain-side, in view of the sea, with a beauty of a road running through a tropical forest. My husband has told the story elsewhere in "The House Itself." We own our own house and lot—a rambling house without method or special architecture, but as comfortable as home demands. When we need anything, we get it.

My husband has no "unethical duties," is bound to no plantation, but does a legitimate practice among the white families, and "his people," the Hawaiians. With our own horses and carriages, we are free to go up the mountain to frost-line or to the beach, either place within an hour's ride. Although delicate, my husband is well and able to attend to his round of duties each day. We look upon the sea from two windows which cannot be closed winter or summer. Music, books, our guests, these make life not only supportable, but very pleasant.

I wish I had space to speak of the literary friendships which have been and are a source of delight to us from day to day. The letters and fascinating "advance sheets" of poems and verse, from Albion Tourgee; sketches of all sorts from Thomas Nast, among them a large pen-and-ink sketch of

Our boy talking with Jack London

our "Family at Koloa." Just a few weeks before his death Mr. Nast had written my husband inviting him to visit the former's consulate. The news of his death was a great shock, yet refusing to mourn in the usual way, he expressed his grief in a poem, one of several included in "Poems of Life and Death," soon to be issued in book form by a Boston publisher. I will give it on the following page:

TO J. R. M.

You might have waited for me, John,
We could have crossed together;
We have been friends so many years,
Under all kinds of weather,

I rather thought that you would write
A postal or a letter,
Telling me when you left the earth
For one a great deal better!

You said if you went first, you'd send
Some message, were you able;
By telepath, pneumatic mail
Or by ethereal cable.

I'd like to have a photograph,
A calendar or snapshot;
If you see Nast, ask him for some,
I'm sure he has a lot.

Dear Soul, he was so fortunate
To quit that sickly Quito;
To think that he should flee before
A bloodsucking mosquito!

I had a note from him a week
Before he crossed the river,
Inviting me to visit him—
"Come now," he said, "or niver."

Well, my dear John, you loved this land,
The paradise of the sea;
I wonder if the heavenly place
Comes up to Hawaii!

One of my husband's fads is the collection of books on or about Hawaii, and by each mail he gets some volumes, old and curious, out of the shelves of a second-hand book store in this country or Europe. He has several thousand already, and his own books and monographs referring to Hawaii, listed by the Smithsonian Institution this year, number about forty titles. These he has written in the last thirteen years. Other books lie on the shelves along the wall, religious, ethical, scientific; on ethnology, sociology, criminology. Medical books are reserved for the office. In the sea-and-sky room are special books, many of them being read in course, as my husband begins several books, leaving one to go to another. "I take my reading as I do my food, for pleasure, digestion and assimilation; variety is the spice."

In the general library are all of Mr. London's books with inscriptions from the author who, with his wife, was our guests for some weeks on their way out in the "Snark." Mr. London is now ill in Tasmania, as we learned from the last mail, and their wonderful trip has been given up. They are going back to California to their ranch, "where we expect you to hang up your hat when you come to California," Mr. London says in his last. A package of letters prized by my husband are those of Philip J. Bailey, the author of "Festus." Here is a photograph taken only a few weeks before his death, with a marked and autographed copy of his well-known poem. Letters in separate pigeon-holes from Charles Dudley Warner, Donald G. Mitchell (Ik Marvel), an intimate correspondence with one of the presidents, who writes to him of his recreations in the Adirondacks. Through his earnest religious faith, my husband has been drawn to friendships with clergymen, and he exchanges letters with Dr. Chas. F. Dole, Robert J. Burdette, and others less known.

As travelers pass through Honolulu, they often hunt my husband out; scarcely one who does not either call or send him a note, as the following from Dr. Dole received the other day: . . . "I have had a dream of looking you up on your big island . . . at least to shake hands with you. . . . I am informed that we pass near your "Doctorage.". . . We shall certainly take pains to learn if it is practicable to have sight of you, which will be a real pleasure." Here are letters in much the same strain from Albion Tourgee, Thomas Nast, James Lane Allen, Edith M. Thomas, John Muir, Bradford Torrey, John H. Whitson, and many more. A unitarian friend, also a physician, burned the following motto on a pine board and sent it to my husband, who put it up in the sitting room:

"In this house we speak no ill of others. Those who have the inclination may, after they close our gates, talk about us."

Near by is Edward Everett Hale's famous exhortation,

"Look up and not down,
Look out and not in;
Look forward and not back—
Lend a hand!"

in his own handwriting. On the same wall hangs a picture of Monadnock in Winter,

"From Edward W. Emerson, Concord, Mass."

With play and rest there is steadfast work to do of a professional nature, taking my husband in all directions over the well-worn roads, or up and down a trail to the mountain or the sea. After diagnosing, segregating, and often treating over 150 cases of leprosy, he prepared several papers on the subject, one of which was published in *American Medicine* in 1907, and has attracted wide attention in Europe and at home and brought the writer many letters of encouragement. Not only this, but invitations came from various governments to work in their laboratories, the offer of at least two professorships and no end of society and university honors.

I am free to say that my husband and I differ as regards the acceptance of "honorary degrees." He invariably refuses any honor which is not going to "add to the good of others besides myself."

I told him once that it would add to my happiness, and he seemed nonplussed! One Ph. D., two A. M.'s, and this year the offer of an LL. D. from a European college, were all declined. He also declined to be a delegate to the International Congress on Tuberculosis at Washington, though he served on the national committee at the request of Dr. Fulton, the secretary-general. He also accepted the vice-presidency of the American International Antituberculosis League, and that of the Medico-Legal Society of New York.

Much to his surprise, he received from Dr. Hansen an invitation to take up a specified subject at the Bergen Conference, then later by cable he was asked to accept the appointment of representative of the United States at this same Conference, and later still by the Governor to represent Hawaii. Home pressure was brought to bear on my husband to accept this mission, which he did. Later still, when he received from the Canadian Minister of Health an invitation to visit the Canadian leprosaria, he was pleased at the prospect of seeing an old personal friend in the Premier, Sir Wilfrid Laurier. For him my husband has always had a deep affection, if not love, based on personal contact and a great admiration for the Premier's abilities. A large portrait of the statesman with autograph came some time ago, with a letter, too personal to quote from, but closing: "With much love for a follower of mine at an age when it must have been more from affection than from reasoning." When Mr. London left our house he could not say good-bye, but his eyes were full of tears. Later my husband sent him the following verses:

WORDS

Some words we cannot say
Until tomorrow, though today
Through closing lips they almost force their way
Out in the spaceless air,
Perhaps to find no echo there!

And some thoughts are so eager to be told
They fret so in this prison hold—
Will they, too, harden and grow cold
If they should find no outlet now—
Or burst the bars away, or how?

Words are not always best, I know,
And thoughts should rest,
Sometimes, long unexpressed;
Yet need a lack of words conceal
The tenderness or love we feel?

—

[The foregoing article is a beautiful tribute to an able and worthy physician by an appreciative wife. Dr. Butler, who has known both Dr. and Mrs. Goodhue for many years —knew them in their student days—speaks in the highest terms of them both. He pays a high tribute to Mrs. Goodhue when he says that she loses herself in the greater life, the broader work of her husband's life. She has a comprehensive understanding of his work, his aims, his purposes; a sympathy with his desires—with his ambitions, his dreams and ideals. She has ever conformed her life to his, and thus helped him, while herself becoming a richer, nobler and better woman, wife and mother. The life of Dr. and Mrs. Goodhue is an ideal one—for they are both living up to their ideals, which are beyond the realization of sordid, selfish souls.—ED.]

SURGICAL AND GYNECOLOGICAL NOTES

BY EMORY LANPHEAR, M. D., LL. D.

EXOPHTHALMIC GOITER AND DIABETES

That there is some relation between the thyroid and the pancreas would seem to be proven by the peculiar fact that in some cases of apparent cure of Basedow's disease pancreatic diabetes has followed, in some instances years afterward. The situation is rendered the more interesting by the fact that when the goiter has been cured the taking of thyroid extract has been succeeded by the appearance of pancreatic glycosuria. In the fatal cases destruction of the islands of Langerhans has been found, as a pancreatic lesion. That the relation between the cure of the exophthalmic goiter and the secondary pancreatic glycosuria is not accidental is shown by the number of cases reported by Murray and others. Reports on the late history of patients on whom the thyroidectomy has been performed should be made by all operators in view of the importance of this subject.

ADRENALIN FOR HEMORRHAGE

Careful investigations have shown that adrenalin has no power whatsoever when given by hypodermic injection, regardless of the amount employed. But when very weak solutions are introduced into the veins, or even injected into the muscles, distinct effects are produced. This is most important because so many doctors are using this agent hypodermically with the hope of controlling hemorrhage and especially internal bleeding. It has also recently been shown that it is not indicated in all internal hemorrhages in any dose, but that its administration must depend upon the degree of blood pressure which is present. When a hemorrhage is severe and of short duration and the blood-pressure has not fallen to any extent, adrenalin should not be employed; here the use of the nitrites to lower pressure is more advantageous. On the other hand, if the bleeding has been profuse and a low pressure exists as a consequence of free bleeding, the nitrites can do little good and adrenalin may be of value, if used in moderate dose, intravenously. The dosage also is important, very small doses being advisable at first. If there be no rise in blood pressure, larger ones may be injected, the object being not only to contract the small blood-vessels but to prevent the contraction of the large ones at the same time, which would antagonize the effect on the bleeding surface. The value of the nitrites in internal hemorrhage lies in their power to lower the blood-pressure and thus reduce the leakage from the ruptured vessel. Judiciously watched, then, intravenous or intramuscular injection of adrenalin is valuable in conjunction with the simultaneous use of the nitrites.

POST-OPERATIVE ACETONURIA

One of the chief objections to the use of ether as an anesthetic is the acetonuria which may follow, and prove serious. In a series of test cases in the Hospital of the University of Pennsylvania 50 percent gave postoperative acetonuria when the anesthetic was ether. In a large number of cases where the cone was employed and large quantities of ether consequently inhaled, 88 percent showed acetonuria after operation; but only 26 percent when the drop method was employed. In a few of these of course (about one-fifth of the cases) symptoms of acidosis were present before the anesthetic was administered. The conclusion is inevitable, therefore, that the use of ether, even by the drop method, is followed by acetonuria. Whether or not this can be overcome remains to be demonstrated. This acetonuria after ether persists for about three days, on the average, though it may continue much longer, five or six days not being uncommon.

The lesson especially to be learned from these investigations is, not to starve the patient before operation, for prolonged abstinence from food alone gives a marked acidosis which may of itself prove dangerous; a little soup given two or three hours before operation being decidedly prophylactic. A second lesson is, avoidance of exposure during operation, and also of violent measures (i. e. severe trauma). When postoperative acetonuria develops, purgation and production of severe sweating are particularly indicated and half-Gram doses of bicarbonate of sodium, or of some appropriate alkaline combination, should be given by mouth every two hours. Hypodermoclysis and small doses of alcohol are also of value in treatment.

PUS TUBES IN THE MALE

Dr. W. T. Belfield, in his address before the American Urological Association, spoke of pus tubes in the male and their treatment by vasostomy. The symptoms, as he describes them, are frequent and painful urination, retention, pyuria, hematuria; genital: frequent and painful emissions, priapism, pyospermia, hematospermia; rectal: pain, local proctitis. The pain has caused the diagnosis of appendicitis, with futile operation. The advantages of the operation of vasostomy are great.

CHLOROMA

This unusual tumor is generally regarded as a peciliar type of sarcoma affecting the bones of the skull and the dura. Study of recent cases demonstrates it to be leukosarcoma which has become pigmented. The accompanying leukemia is due to the invasion of the blood by the lymphoid elements. Metastases may occur in the heart, pleura, kidneys, meninges and brain. Radiotherapy gives best temporary benefit.

EROSIONS OF THE RECTUM

When treating erosions of the rectum the speculum should not be lubricated with petrolatum or other grease as this will interfere with the action of the local application, one of the chondrus jellies on the market being preferable for all instruments. The erosions may be burned with the crystals of potassium permanganate, or touched repeatedly with a saturated solution. These applications may be made every third or fourth day if there is not too much reaction. They may be followed by 10-percent ichthyol suppositories or by healing ointments.

ACUTE DILATION OF THE STOMACH

Mild dilation of the stomach after prolonged anesthesia is now regarded as quite common, especially when operation is prolonged or amount of trauma great. It appears at first to be a gastrointestinal paralysis, with reversed peristalsis appearing later, the exact cause being unknown in some cases, but undoubtedly a mild sepsis in most. The most constant and characteristic sign is the welling up of small quantities of bile-stained fluid which later becomes darker and thicker, with the stink of decomposing blood. But the experienced surgeon does not wait for this dark semistercoraceous vomit; he washes out the stomach with saline solution and pours down at least two ounces of magnesium sulphate in saturated solution. At the same time he begins the hypodermic use of a milligram (gr. 1-60) of salicylate of physostigmine (eserine) every hour, six doses if needed. Ox-gall enemata are also useful. Hypodermoclysis is indicated if secretions are scanty, as is often the case.

ENLARGED PROSTATE

Increasing experience demonstrates that in many cases of enlarged prostate the condition is not a hypertrophy but the growth of a fibroid tumor in each lobe, the consistency of the fibroma being precisely that of its analog, the fibroma uteri. These cases are particularly easy of cure by operation as the tumors pull out readily without much hemorrhage or shock. But the hypertrophies dependent upon inflammatory proc-

esses, where the inflammatory foci are the mouths of the excretory ducts, thus causing occlusion of these with damming-up of the glandular secretions are far more serious. They necessitate total prostatectomy instead of enucleation—an operation of gravity even in the hands of experts. The stenosis or occlusion of the prostatic ducts leads to dilation of the glandular crypts and eventually to more or less cystic degeneration, in some cases with marked signs of submucous chronic inflammation in the posterior urethra, and of catarrhal proliferation and desquamation of the epithelium in the follicular pouches and outlets of the prostate. Some prostates contain less glandular substance than others, and the effect of the inflammation is felt less on this account. The general practician is interested in this class of cases; for, whereas nothing but surgical removal of the tumors is curative in the fibroma, in the hypertrophic form of prostatic enlargement the attending doctor can do much.

As Rothschild properly points out, one should not fail to institute a three or four weeks' course of massage two or three times a year for several years after subsidence of the acute phase of prostatitis. This will counteract the stagnation of the secretions and development of deposits of round cells at different points, while it will promote the circulation through the blood-vessels and lymphatics and favor absorption of inflammatory infiltrates. Of course, after fibrous connective-tissue processes have developed, massage is no longer effectual. It may be usefully supplemented by other measures to promote absorption, such as brine and mud-baths, etc.

::: THERAPEUTIC NOTES :::

QUININE HYPODERMICALLY

Young (*Lancet*) describes three cases of malaria that had resisted quinine by the mouth, but were promptly cured by injections of the hydrochloride, gr. 10, followed by 5-grain doses in cachet t. i. d. The injections were made deeply into the gluteal or deltoid muscles. The dose was boiled in a test-tube with a dram of water.

RENAL DROPSY

Rolleston said (*Lancet*) that rapid absorption of anasarcal fluid might occasion uremia. Dropsy in acute nephritis was conservative. Toxins in the blood damaged the capillary walls and led to transudation of fluids. Purgation, free drinking of fluid, especially milk, might remove these toxins, but not if the kidneys were incapable of removing the fluid, when hydremia might occur. Diuretics might injure the kidneys. Copious drinking should be avoided in acute and subacute nephrites. Caffeine was more successful than theocin or diuretin. Hot-air baths were better than restricting the intake of fluids. The best way of removing toxins was by incising the legs, or a single incision on the dorsum of the foot. The salt-free diet was often disappointing.

ACUTE RHEUMATISM

May found that cresotinic acid exerted an action closely resembling that of salicylic acid, while toxic symptoms were less readily produced. Brunton, in the *Lancet*, remarks that this might prove a new and useful remedy in this malady.

CARDIAC DROPSIES

Rolleston said that the treatment might be rendered difficult by the presence of fecal toxemia or renal insufficiency. The mechanical breakdown was to be met by rest and digitalis. The tincture had been shown by

Dixon to be sometimes devoid of any active principle; the fluid extract was good, or digitalin granules, Barr's caffeine and digitalis, or the latter with theocin or diuretin. The restriction of fluids was important. The use of salt should be limited and massage often was useful.

LACTIC ACID IN DIARRHEA OF INFANTS

C. H. Dunn of Boston believes that the indications for treatment are removing the fermenting intestinal contents by purgation and restoring the normal intestinal flora. The increase of the carbohydrates in the food will favor the latter, but the more specific treatment is to introduce into the intestines an organism capable of inhibiting the growth of the abnormal forms, which he found most conveniently in the lactic-acid bacillus. In other words, "clean out, clean up and keep clean," give saline laxative, intestinal antiseptics, and proper food, including buttermilk.

OIL OF CLOVES IN EXCESSIVE COUGHS

Dr. H. A. Hare warmly indorses the use or the oil of clove in the treatment of cough and excessive expectoration of pulmonary tuberculosis. In bronchiectasis from 5 to 10 drops of the oil of clove employed hypodermically once or twice daily generally yields good results. The injections are painful, but only for a brief space of time, and the relief afforded fully compensates for this, so that the patient does not object after the first injection of the treatment.

HOARSENESS AND CROUP

L. F. Morse, in the October number of *Ellingwood's Therapeutist*, recommends potassium bichromate, 1 grain in 4 ounces of water, a teaspoonful every two hours, as an excellent remedy for hoarseness, hoarse bronchial cough, and loss of voice with hoarseness. When there is hoarseness with croup, he combines small doses of veratrum, especially if the pulse is rapid and hard. In the cases of hoarseness due to congestion, the defervescent granules, given every one-half to one hour, and potassium bichromate, 1-67 grain at the same intervals, will prove very beneficial.

MORPHINE AND GELSEMININE FOR THE RELIEF OF PAIN

By combining gelseminine with morphine, used hypodermically, we find that the anodyne power of the morphine is doubled and its effect is more lasting.

ATROPINE IN DIABETES

Dr. Rudisch, in *The Critic and Guide*, recommends the use of atropine sulphate and methyl bromide in diabetes mellitus. The initial dose of the methyl bromide is 2-15 of a grain three times a day, gradually increasing by 1-15 of a grain until doses of 8-15 grain three times a day are taken. He gave 3 grains daily in one case. The dose of the atropine sulphate was 1-150 grain three times a day, gradually increasing the dose to 1-120 grain. With the appearance of toxic symptoms, such as dryness of the throat, the atropine is to be stopped entirely or the dose diminished. After a period of rest it is resumed. The atropine has a double action; it reduces the amount of sugar excreted, and it increases the tolerance for carbohydrates.

APOMORPHINE AS A HYPNOTIC

Douglas recommends apomorphine as a prompt and reliable hypnotic in the hypodermic dose of 1-30 of a grain. He states that in promptness and certainty it has no equal.

MAGNESIUM SULPHATE AS AN ANTIPHLOGISTIC LOTION

Dr. Thos. W. Musgrove writes, in *The Medical Council* for October, that magnesium sulphate, 1-2 ounce dissolved in 1 pint of water, makes an excellent application for the swelling of sprains or dropsy of the legs and feet from any cause. Make

a sufficient quantity of the solution in which to soak flannels and wrap the swollen parts with the hot wet flannels, keep the parts fomented for twelve to fourteen hours and the swelling will disappear almost invariably.

IODINE FORMULA FOR STERILIZING THE SKIN

Recently the sterilization of the field of operation by a solution of iodine has become quite popular. Its chief advantage is that it may be used in emergency work where scrubbing is impossible. It is composed of

Tincture of iodine.....1 part
Methyl-alcohol.....3 parts
Water .....3 "

This solution is painted on very freely, especially over hairy parts, and allowed to soak in. A second application is made immediately before operation. It is also to be used when the first dressing is made on the eighth day, when the stitches are removed.

ACUTE FEVERS

In acute fevers, especially remittents and intermittents, Burggraeve utilized arsenous acid combined with quinine, as the quinine arsenate. His dosage rarely passed 20 of 1-6-grain granules a day. Physicians practising in the lowlands of Algeria found these doses to succeed where they had failed with massive doses of quinine sulphate. In the neuralgias and neuroses he obtained excellent results from strychnine arsenate in doses of half a milligram; adding hyoscyamine for spasm, morphine for pain, aconitine, veratrine and digitalin for fever. In the fever of consumption he found that caffeine arsenate lessened the wasting. In diathetic maladies he chose from the arsenates of iron, sodium, potassium and antimony. Iodide of arsenic was found especially useful in strumous affections.

AUTOINFECTION DURING FEVER

It has been the fashion in some scientific circles to claim that fever is a salutary process and should be encouraged rather than combated. The following conclusions of Barkankieff may be of interest. His results seem to prove that during fever the organism is more susceptible to autoinfection by the bacteria inhabiting the body-cavities, and that fever greatly diminishes natural immunity and renders the subject liable to infections to which it is otherwise immune. The resistance of the organism to the entrance and growth of bacteria is so far decreased that even attenuated strains of the pathogenic organism induce characteristic lesions. This is directly in line with our own teaching and again emphasizes the importance of emptying and disinfecting the alimentary canal during acute as well as chronic disease.

PLACENTAL ACTIVE PRINCIPLES

From extract of placenta, putrid meat and ergot have been isolated two substances, isoamylamine and parahydroxylphenylethylamine. Dixon (*Lancet*) found that small doses caused marked acceleration and increased amplitude of the heart beat, resembling adrenalin, but the action was much more prolonged and was manifested when these bodies were taken by the mouth. Similar bodies were produced in the ripening of cheese and in the preparation of cod-liver oil by the old method. Discussing this paper McWalter stated that alcoholic extracts of ergot were clinically inert, while the fluid extract remained active after it had decomposed. Cameron said that the adrenal extracts had proved disappointing in Addison's disease on account of the brevity of their action.

CALCIUM SULPHIDE

Dr. Waugh has the following to say in *Practical Therapeutics* regarding the value of calcium sulphide in the treatment of diphtheria: "Give calcium sulphide to a child of two years, in doses of a grain every hour, until the saturation is denoted by the odor of sulphureted hydrogen on the breath and skin, or until nausea occurs. The beneficial effects will be unmistakable.

Continue the drug in smaller doses to keep up the effect until the membrane has come off. So necessary is it to sustain the heart and so insidious is the action of the toxin, that it is wise to give moderate doses of strychnine from the start, to be increased upon signs of weakening circulation."

ACRODYNIA

Under this term Burggraeve describes this malady: "There is a painful stiffness of the fingers, with tingling at the tips so acute as to prevent sleep, unless with the arms hanging out of the bed. The skin between the fingers and at the tips is as anesthetic as in lead-palsy. Sometimes there is an eruption, papulous or vesicular, with sweating or edema. He advised the alkaline alteratives, arsenate of sodium or of potassium, with sedatives like cicutine, which latter calms the nervous papillæ especially.

CANTHARIDES IN THE TREATMENT OF NEPHRITIS

In a contribution to the *Journal de Médicine* Dr. Landereux reports the following case of a little girl, aged eight years, who developed a severe nephritis after scarlet-fever. There were albuminuria, hematuria, and cylindrical casts, with vomiting, pallor, edema of the face and lower limbs, and insomnia, and the total amount of urine excreted in twenty-four hours varied between 150 and 250 cubic centimeters. The symptoms persisted in spite of treatment for nearly a month, and then one minim of tincture of cantharides was administered. On the following day the urine excreted rose to 600 Cc. For the following four days two minims were given each day and the urine excreted each day rose successively to one thousand, fourteen hundred, sixteen hundred, and two thousand Cc., the patient made rapid progress and at the end of six weeks left the hospital entirely cured.

Similar results followed the treatment of some cases of nephritis in young adults, brought on by exposure to cold and excessive exertion. The symptoms were most severe, especially in regard to the diminished quantity of urine excreted. In these cases, of course, larger doses were given, commencing with four or five minims and increasing to twelve minims a day for a few successive days. On each occasion the administration of the drug was followed by a rapid increase of the amount of urine excreted and the steady amelioration of all the symptoms until a complete cure. These facts, supported by so high an authority, will undoubtedly lead to a more extended trial of the drug in such cases.

The medicinal action of cantharides is due to the active principle, cantharidin, which is largely excreted by the kidneys, to a less extent by the gastrointestinal mucosa, and slightly, if at all, by the respiratory mucous membrane. The active principle is by far more reliable than the tincture; however, it must be looked upon as a highly specialized weapon, delicate and keen-edged, capable of doing much good, but dangerous in unskilled hands. It is strictly a drug for dosimetric administration and should never be given in large doses but in minimum doses frequently repeated, until the beginning of burning in the stomach or urethra, which shows that the physiologic limit is reached. For use by the dosimetric method the dose may be placed at 1-5000 grain, repeated every hour until slight burning is felt in the stomach.

STRYCHNINE IN TRIFACIAL NEURALGIA

Hussey recommends strychnine as the most reliable of a long list of drugs that has been recommended for this malady. It should be given in large doses once daily, and gradually withdrawn if its effect is favorable.

INCIPIENT TUBERCULOSIS

Dr. I. N. Brainerd, Alma, Mich., writes: "I have found the oil of eucalyptus in 10-drop doses four times a day an excellent remedy in incipient consumption. I use this compound: Oil of eucalyptus, oz. 1; glycerin, oz. 1; simple syrup, q. s. ad ozs. 8."

Nature, Function, and Pathology of Sleep

Dr. A. Lorand shows that sleep is the result of a fatigue-toxin, removed during sleep by the action of the thyroid gland; and that somnolency and insomnia are connected with disease of this organ. The rational treatment of these conditions, and their prevention, are also considered

II

3. *The Hygiene of Sleep*

THE case of a certain person is known who was blind on one eye and deaf on one ear who used to fall asleep at once when the sound eye and ear were closed. The cerebrum of that person could simply not be disturbed by any perceptive impressions. This case is extremely instructive. The best hygiene of sleep will always consist in the exclusion of any and every excitation of the cerebrum, because then only can that brain become anemic, empty of blood. Everything which attracts its attention, even if it be the least unaccustomed perception of a noise, as the ticking of a watch, low speaking, or a ray of light, can prevent going to sleep, while far stronger sounds and lights when one is accustomed to them will not disturb at all simply because they no longer impress the cerebrum. The miller is not prevented by the clatter of his mill nor the inhabitant of the great city by the rattling and jangling of the street-cars from falling asleep and sleeping soundly throughout the whole night. But this same miller may wake up should the mill-wheel suddenly stop and cease its noise.

What is necessary, therefore, above all in going to sleep, is to keep away everything engaging the attention of the cerebrum, and these things will commonly be noise and bright light; but in come cases it may be the very opposite. Not seldom, also, it is the temperature of the sleeping room which plays an important part in this matter. There are many persons who cannot sleep well in a warm room because here the brain cannot easily become sufficiently anemic. To prevent the air in the sleeping room from becoming vitiated the largest available room in the house should be selected as the bed-chamber instead, as unfortunately too often is done, the smallest and dingiest one. During the night the window in the sleeping room should be left open, partly at least, or at any rate in the adjoining room. The most advantageous sleeping room is one that looks out on a park or garden and which is not heated at night.

In order that the brain may have rest, all other organs of the body must be inactive as well. To sleep well there must be a complete relaxation of the entire body. Digestion, which is not yet done before going to bed, or paining of any organ, or excessive flatulence, and such other conditions, may disturb the sleep by exciting the perceptive capacity of the cerebrum. Meals in the evening should be taken long before going to bed, and only very little or no meat at all should be partaken of at that time.

A person suffering from insomnia should take his or her evening meal very early and no meat with it. There are many persons who sleep best when they eat nothing at all in the evening or something very light, such as fruit and biscuit, while others, especially those who suffer from an excess of gastric hydrochloric-acid secretion sleep very poorly when they go to bed without first partaking of some food. In such cases a glass of milk taken on retiring will help at once.

Gas-producing foods, such as legumes or potatoes (especially in conjunction with beer) must be strictly forbidden at night, for flatulence is more than an ordinary disturber of sleep. If it becomes necessary, flatulency should be relieved by a glycerin suppository, the fecal evacuation helping to expel the gases, when sleep comes at once. Furthermore, no diuretic mineral waters should be taken in the evening lest accumulation of urine in the bladder disturb and awake the sufferer. Disturbance of sleep is also very often caused by sexual irritation, especially in continent persons and in onanists. Here, when an effectual resolve is not to be had, a rational sexual hygiene can alone avail, at least measurably, of which I shall speak more in detail further on.

Sleep is most readily disturbed in persons who habitually sleep very lightly, and in the morning hours when sleep is lightest in all persons; the longer a person has slept the lighter the sleep will become. The deepest sleep is during the first hours. A noise which would wake us three or four hours after midnight we may not hear at all at the hour of one or two o'clock. It is decidedly best to go to bed not later than half-past ten, but by no means as late as after midnight. And notice well! Do not occupy mind and spirit too strongly shortly before retiring! Do not make it more difficult to render the brain anemic by intense thinking, writing, or reading, or by sorrowful brooding over cares, disappointments and misfortunes. The later the mind or the spirits are quieted the more difficult will it be for the body to get its needed sleep. Instead of taking medicines against sleeplessness it is better to avoid its causes, and above all things thinking and reading after lying down to sleep.

The amount of sleep needed is still an unsolved problem, for that need depends upon the individual and upon changing circumstances, so that each individual has to discover for himself the proper amount of sleep he needs. But in any case it is the profoundness of the sleep that must decide the amount required. The more profound the sleep, the more intense is the detoxicating process which we have assumed to go on during sleep, and so much the shorter might its duration be allowed to be.

Taking it all in all, the time will be between six and eight hours—more for girls and women; for most normal adults seven to eight hours will best suffice. The main consideration is that the individual feel himself refreshed and vigorous on rising. The younger a child, the longer it should sleep, say, eleven to twenty hours in the twenty-four. In high old age we meet with many cases of obstinate insomnia, consequent upon a change of the cerebral blood-vessels; but there are also those who are constantly sleepy. Even the same individual may not always have the need of the same amount of sleep, under some circumstances as little as five hours' sleep sufficing, while at other times eight hours may not be enough. If any one did not have enough sleep for one or two nights the lack should be made up the next night; that this can well be done is an evidence to me of the detoxicating effect of sleep.

Too much as well as too little sleep equally produces lassitude, discomfort, hebetude and apathy for work. So here too the golden mean is to be kept, which alone is able to restore the energy spent during the hours of the day, or in other words, to eliminate the accumulated toxic substances. When we see an individual after one single completely sleepless night and notice his sudden aged appearance, we will then readily believe that frequent or continuous lack of sleep will undoubtedly promote premature aging. And, again, when we observe how even one good night of sound sleep suffices to restore that individual's normal appear-

ance then we will conclude from this that to prevent premature senility sufficient sleep is an absolute necessity.

Above all things to be avoided is railroad traveling at night. Go to bed as early as you can and you will also rise early. Wesley, the reformer, has said long ago, "Early to bed and early to rise makes a man healthy, wealthy and wise;" and it may be added that it allows him to become very old also. Of most of the centenarians we know that they were early risers. The fact that early going to bed is more usual in the country than in cities undoubtedly is one of the reasons why longevity is more prevalent in the country than in the city. A person rising early in the day becomes tired and sleepy early in the evening and thus is more likely to enjoy a sound and healthy night's sleep. Early rising is therefore a most natural preventive of sleeplessness. Then also the appetite, the feeling of hunger, is promoted by this excellent habit of early rising, which can never be too urgently advised, although its formation may in the start cost great amount of self-command. This over, a person is likely to remain an early riser. If this is not possible in the winter, then it should be practised at least in the summer time.

4. *Rational Treatment of Sleepiness and Sleeplessness*

We have shown before that the removal or the degeneration of the thyroid gland produces sleepiness and that on the other hand an overactivity of the same gland produces sleeplessness; hence it seems only logical to try to remedy the condition of sleepiness by increasing thyroid activity, and this can be done, according to my own experience, by the administration of thyroid-gland extract. I have already mentioned the case of the sleeping disease in a Belgian officer for whom I prescribed thyroid gland and who in a very few days began to be less troubled with sleepiness, and mental action and general condition of health strikingly improved.

Still more favorable results I obtained with this treatment in an excessively fat patient of Prof. Launois of Paris. That man weighed 125 kilos (about 280 pounds) and would fall asleep with extraordinary ease even when standing or walking. He once was arrested in the Versailles picture gallery after falling asleep involuntarily while viewing the pictures and allowed himself to be incarcerated as a thief, for which he was mistaken. One day he was arrested by the police in Carlsbad under the suspicion of being drunk because he was found asleep in the street. In addition to the usual Carlsbad cure I treated him with thyroid gland, and in a few weeks got him so that he would not fall asleep in my waiting room. After six weeks he was restored and his weight had been reduced 16 kilos (about 39 1-2 pounds. Experimenting upon myself, I took 0.3 Gram (5 grains) of thyroid gland daily for some weeks. As a result I began to suffer from sleeplessness, and so powerful was the effect that it did not disappear completely until a week after stopping the tablets.

As to the opposite affection, that is, insomnia, first and above all, it must be guarded against. Instead of taking noxious medicaments afterward to cure the condition, one would better follow the prescriptions laid down in the preceding chapter and by a hygienic mode of life prevent the causes of the trouble. Take in oxygen freely by living as much as possible in the open air; tire out yourself by much moving about, but do not overdo it; avoid coffee-houses, drinking houses and similar unhealthy localities in the evening. If possible have a ride in an open carriage for an hour directly before going to bed. Change of locality to a higher level in mountain regions often has excellent effects in sleeplessness. Luke-warm baths of about 30°C. (86°F.) of ten to twenty minutes' duration immediately before retiring often brings on sleep. (Cold baths usually have the opposite effect.) For the difficulty of going to sleep again after waking up during the night the best remedies are darkness and quiet, aside from retiring early, which furnishes many hours of sleep before wakening up.

To minimize the evil of the retention of fatigue-substances in the system due to insufficient sleep, a few hygienic precautions may prove serviceable. In the first place, on

getting up after a sleepless night in winter, enter a well-warmed room. In that way the evil consequences are felt less, for in a cold room greater demands are made upon the body-heat-regulating thyroid gland. Next, take a hot bath, or a Russian or Turkish bath, to promote perspiration and thereby the elimination of the retained toxic substances. Still better is an electric-light bath with preponderating blue rays, for the latter has besides a nerve-quieting effect.

(*To be continued*)

CONGENITAL DILATION OF COLON

At the January session of the Gesellschaft fuer Innere Medizin und Kinderheilkunde, in Wien, Dr. S. Bondi presented a patient affected with Hirschsprung's disease, i. e., congenital dilation of the colon. The same patient was presented eight years ago to the Gesellschaft der Aerzte by Dr. Federn. The case is that of a man fifty-nine years of age who from his earliest infancy was affected with retention of feces. At the same time he suffered constantly from distention of the abdomen, which gave him heart trouble and dyspnea. The patient relates that already in his second year of life he was brought from his Moravian home to Vienna to have him treated for obstipation. Passing over the reading of the long and tedious anamnesis Dr. Bondi mentioned that the patient frequently went without a passage from his bowels for three months, then he would frequently introduce a rectal tube and prepare injections, but even this means often failed of results. He is married and is the father of three healthy children. When at the present time all measures failed again to do him any good he came to the hospital for treatment.

The patient is quite emaciated. Musculature and paniculus adiposus are very weak. Skin is somewhat dry. Respiration is very labored and strained and purely costal. The thorax in its lower part is distended like a barrel. The lung limit in the front is at the upper margin of the fifth rib and behind at the ninth spinous process. The arch of the aorta is prominent at the jugulum (suprasternal notch), denoting a high position of the diaphragm. The heart is very much overlapped by the lung, and like the palpable arteries presents the evident conditions of arteriosclerosis. The abdomen is of immensely distended volume. The flanks are very convex. The abdomen everywhere gives either a tympanitic or a meteoristic sound (on percussion); its skin is tense and glossy. This extreme degree of distention the patient is able to ameliorate by a peculiar way of getting rid of the gases. He kneels on the ground, drops his head strongly down and elevates the nates, and in this position the gases escape.

Examining now the patient's abdomen, it is found to be softer and distinct outlines of intestines become noticeable. Specially prominent is one piece of intestine, which is far thicker than a man's arm and extends from the middle of the left costal arch to about the middle of the right Poupart's ligament and exhibits considerable peristaltic movements. When the peristalsis is at its highest the otherwise soft segment of intestine becomes hard and tense. In the right mesogastrium there are distinct rigidity of small intestines, probably in consequence of hindering the passage of the small intestine by the above-mentioned portion of enlarged intestine, which denotes everywhere a vast accumulation of feces, by Gersuny's adhesive phenomenon [see Hemmeter's "Diseases of the Intestines," vol. 11, p. 241.—THE GLEANER] where the whole internal side of the intestine seems to be plastered over with fecal masses. On rectal examination also we come upon a mighty fecal tumor which is covered over with mucous membrane and forms the roof of the wide ampula there. At present we are trying to soften the fecal masses with oil enemas and then washing them out with water.

The conditions disclosed plainly permit us to interpret them as a congenital dilation of the sigmoid flexure, hence as the Hirschsprung's disease. Especially remarkable is the case for the patient's age to which he has attained, for most cases of this kind succumb in early life to this abnormal condition. His age forbids operation.—*Wiener Medizinische Wochenschrift*, 1909, No. 9.

Pellagra: The Latest "Medical Peril"

This disease, so virulent, that it has been called "Italian leprosy", was until the last two years unknown in this country. Hundreds of cases have been uncovered recently, and in many states. It is a serious medical and economic problem

THE witty editor of a well-known medical journal recently proposed to offer a prize to any other publication of our common class that had printed nothing about pellagra during the last few months. No one has applied for it! Needless to say, *we* shall not, because we believe the subject to be one of intense interest not only to every physician, north or south, but to our economists and sociologists as well. As we shall see later, looking at the disease in the light of the commonly accepted theory as to its etiology, the spread of this disease may have a far-reaching effect upon our most important agricultural crop, that of Indian corn. Anything which inimically affects the cultivation of corn and its profitableness strikes a serious blow at the prosperity of the richest section of our country.

Until two years ago there were not known to be any cases of pellagra in the United States. The first indigenous cases (except two or three sporadic ones) to be reported were described by Dr. G. H. Searcy as occurring at an insane asylum in Alabama. This was in 1907. Dr. Searcy's cases were of the acute type. But the succeeding summer (in 1908) two South Carolina physicians, who had studied the disease in Italy, identified cases in their own state, and soon many others were brought to light in other southern states—South Carolina, North Carolina, Georgia, Alabama and Tennessee. Early in the present year (1909) pellagra was discovered in the Cook County Insane Asylum at Dunning; then it was found to be present in the State Asylum at Bartonville, Illinois, near Peoria. According to Dr. C. H. Lavinder of the Public Health and Marine Hospital Service there are now records of about 1000 cases of pellagra scattered through thirteen states. More than half of these are in asylums or similar institutions.

While some of the cases reported as pellagra are undoubtedly erroneously so diagnosed, it is also highly probable that there are hundreds, very likely thousands, of cases which have not yet come to light. This is rendered the more probable because if we accept the Italian statistics, only about 10 percent of the victims reach the insane asylums. Accepting that hypothesis, there would be in excess of 5000 cases, with many institutions in different states still to be heard from.

In the light of these facts CLINICAL MEDICINE wishes to urge upon its readers the importance of familiarizing themselves with the symptoms of the disease and promptly reporting cases. We shall be very much pleased if they will report to us, for publication in these columns.

The word "pellagra" comes from two Italian words meaning "rough skin." It was first observed in Europe, in Spain, about

1735. Since that time it has spread all over southern Europe, and into Asia Minor and upper Egypt. It is most prevalent in Italy and Roumania; in the former country there are said to be 100,000 "pellagrins" (as people suffering from this disease are called) and in Roumania 50,000. In Italy it is recognized as a national menace and the government is taking vigorous measures to arrest its spread.

A TYPICAL CASE OF PELLAGRA

This picture is reprinted from the Bulletin on Pellagra prepared by the U. S. Public Health and Marine Hospital Service. It shows a typical case of the disease. Note the eruption on hands, wrists and face, and particularly the despairing expression on this poor child's countenance. This facies, marked by utter hopelessness, is said to be nearly always present.

Nearly one hundred years ago attention was called to the relation subsisting between maize and pellagra, and now the dominant theory is (and has been since 1844) that the eating of spoiled maize (Indian corn) is the cause of this disease. This theory received the support of the great Italian criminologist, Lombroso (who, by the way, died last month), who devoted twenty-five years to its study. His theory is that certain fungi growing on this spoiled corn produce a certain toxin, or toxins, which in turn may cause the disease. He believes that two of these are found in diseased corn, one resembling in its action strychnine, the other cicutine.

At the Mississippi Valley Medical Association meeting at St. Louis, in October, Dr. Watson of Columbia, S. C., exhibited a case of this disease, which gave us a much clearer conception of its character even than did his splendid paper on the subject. He also injected a guinea-pig with an alcoholic extract made from musty corn. The cavy died in less than five minutes, thus illustrating the extreme potency of this pellagrinous poison.

The symptoms of pellagra have already been described in CLINICAL MEDICINE (see editorial, September number, page 957) so that we shall not try to enumerate them all again in detail. There are some points, however, that we desire to emphasize.

1. Pellagra is not a "skin disease." The eruption is only one symptom, and that often a late one. This eruption usually is absent during the winter months, appearing early in the summer and lasting, with various exacerbations and occasional improvement, until autumn, when it again fades, leaving behind areas of darkened skin, described by Dr. Watson as "liver- or chocolate-colored."

At its first appearance the eruption can not be told from a sunburn. There is the same inflammatory redness, followed by a similar exfoliation. Later, in severe cases there may be bullæ, crusts, cracks, etc There is no itching. Usually the eruption is confined to the exposed portions of the body, the hands, the feet (if the individual goes barefoot) and the face. Covered portions are rarely affected, but usually pressure points, as elbows, and knees, suffer slightly.

2. The whole alimentary tract is affected in greater or less degree, the inflammatory reaction which it manifests probably being an analog of the skin eruption. This is most apparent in the mouth, the tongue becoming a bright red ("cardinal tongue," socalled) as does the whole buccal mucosa;

there is also salivation and a disagreeable odor. There is soreness in the stomach, occasional vomiting and persistent diarrhea in most cases. One of the speakers at the Mississippi Valley meeting stated that he had found the rectal mucosa reddened like that of the mouth.

3. There is loss of weight as well as of strength. The more prominent the diarrhea, the faster the patient goes down-hill. There is great muscular weakness, almost amounting to paralysis, in the lower extremities, giving the patient a shambling gait, simulating loss of coordination, which is accentuated by the fact that the patient often suffers from vertigo. Usually he is stooped, the shoulders being dropped forward.

4. The nervous symptoms are prominent, indeed the poisons of the disease primarily seem to attack the nerve-centers. In other words, the disease is a profound toxemia, striking at the very centers of life. It has been suggested that the skin and digestive symptoms indicate the route of toxin elimination, although they rather suggest trophic symptoms. Headache is very common and the patient usually suffers severely from backache; while there is tenderness along the spine.

5. In every case there is greater or less mental depression. This may be mild, or pass to actual insanity. In Italy 10 percent eventually go into the asylums, and the same is true in this country, probably. Dr. Zellar, superintendent of the Baronville Asylum, made the statement that there were 200 cases in his institution. We have reproduced one picture to show the typical pellagra facies, the expression of despair which it shows being characteristic of many of these cases.

6. While there is an acute form of the disease, which may be rapidly fatal, very many of them are extremely chronic, some cases persisting for twenty and twenty-five years. The case shown at St. Louis was of a boy twelve years old, who had suffered from the disease for nine years. An older sister had died at fourteen, after ten years of suffering. These children were brought up in a country grist-mill, where they played in the newly ground corn.

What of the treatment? The diarrhea and digestive symptoms are usually treated with opium, bismuth and astringents, but this is not the essential point of therapeutic attack. In our opinion, however, the necessity of having a clean alimentary tract is as important here as in other diseases, and it should be kept as nearly sterile as possible by the use of the sulphocarbolates to prevent the additional poisoning which may be contributed by fecal material. According to Lombroso the most important single remedial agent is arsenic, and this has been given in many forms—the whole gamut, all the way from Fowler's solution to atoxyl, having been run.

We have had no experience with this disease, but it seems to the writer that we have to deal here with an infection and a toxemia that is or at least may be self-perpetuating within the body of the individual, since it persists even after the cause itself has been removed. Aside from the control of diarrhea, the disinfection of the bowel, the favoring of digestion and nutrition, the support of the vitality, all by proper remedial agencies, it seems that we should make an effort to combat this poison.

Two remedies especially occur to us as likely to prove of value here, and these are calcium sulphide and nuclein. The former is a direct antagonist of low forms of life; the latter raises the resisting power of the blood and favors the improvement of nutrition. I should like to see these tried, the latter hypodermically. Arsenic, so warmly praised by Lombroso, can not be given in a better form than as the arsenate of strychnine or the arsenate of quinine; these should prove of great value. Iron is said to be contraindicated.

With these suggestions I leave the matter in the hands of our readers. Following this article will come several reports of cases known to be or suspected to be pellagra, with photographs. I sincerely hope that a careful study of these cases may lead to the reports of others. Send them in by all means; do not wait to have the diagnosis

verified. These should be cases for mutual comment and criticism. We want photographs also. Most important of all, we should, among us, contribute something to the therapeutic solution of this great problem, which confronts us all.

A TENNESSEE CASE OF PELLAGRA

I have a strange case to report. A man about forty years of age has been complaining some six years of indigestion and general nervous debility and been a victim of hypo-

UNDOUBTEDLY A CASE OF PELLAGRA

There is very little question as to the correctness of the diagnosis. Note the clearly defined eruption, with its well-defined lines of demarcation and scaling epithelium.

chondria, and now the last six months he has not been able to do any work and at times could not even walk. For the last four weeks his hands, arms and face have been broken out with an erythematous eruption which the doctors have pronounced pellagra. I will also send a photograph of the man. My treatment for the case was general constitutional measures, to eliminate the toxins which accumulated from his indigestion and improper food. Please give me some light on this case as it seems hopeless to me. The books I have treat very lightly of this disease.

W. E. Roberts.

Talbott, Tenn.

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[A picture of Dr. Roberts' case is shown herewith. This is undoubtedly pellagra, almost a typical case. In reply to a letter of inquiry for more details Dr. Roberts wrote: "The patient says that about seven years ago he got nervous, had stomach and intestinal trouble, and was afraid to meet people. He remained in this condition for some time, during which he was treated by several physicians. He improved some and was able to do a little work until about October, 1908. Then he had trouble with his stomach, liver and kidneys, got weak in his limbs and could not walk. About the first of August, this year, his hands began to get red and brown spots appeared on them, the eruption later appearing on his cheeks and nose. His hands are now a little better, but face unimproved. He has had no diarrhea, no sore mouth and no salivation. He has been a very poor man; says he has lived principally on corn-bread and has eaten some musty meal. He sometimes complains of headache. He is a hypochondriac, always looking at the dark side of things."

Except for the absence of sore mouth and diarrhea this is the description of a nearly typical case. It should be noted that the prognosis is better in those cases in which diarrhea does not occur.—Ed.]

PELLAGRA—PERHAPS

On July 27 I was called to see a negro girl eleven years old. I found the patient on a mass of old filthy patch-work quilts. The odor was anything but pleasant. She was a breathing, human skeleton. On examination I found her mouth, tongue and throat red and raw, tongue and lips cracked, all very much inflamed. Her wrists, ankles and the dorsal surfaces of the hands and feet were denuded of integument; the palmar surfaces of hands and feet were not affected. The skin at the bottom of

feet and palms of hands was turned black around the edges; the fingers were drawn about half flexed and the finger-nails cupped, resembling the claws of some animal. In her whole aspect the girl resembled a baboon or some wild animal. Her mind was

PROBABLY BUT NOT SURELY PELLAGRA

Dr. Woods feels quite sure that this is a case of pellagra, and gives excellent reasons for this belief. If we could see the hands we might judge better; but the eruption on the feet does not seem true to description, the pellagrinous facies is absent, and the symptoms, as described, leave us in doubt.

gone and when she cried (which was all the time I remained in the hut) she made a peculiar hissing whine.

She was continually scratching at her hands and feet. She had a persistent diarrhea. The stools were very offensive and of an indescribable odor. There was a ravenous appetite. No eruption on any other part of the body. Temperature normal.

The history of the case was that the eruption appeared some time before, and she soon began to lose flesh. When diarrhea set in emaciation was rapid. The eruption gradually grew worse until the time I saw her.

There was but little chance to do anything in a sanitary way. The family was in the country, living in a one-room hut, and the poorest of the poor. I ordered her cleaned up and put her on 3-grain doses of blue mass, three times a week, intestinal antiseptics and bismuth subnitrate, large doses every two hours the first day, then three hours continuously afterward, 1-60-grain doses of strychnine arsenate three times daily, and twenty-drop doses of tincture of iron chloride, three times daily after food. I restricted the diet to liquid food until the diarrhea was better, then gave wheat bread with game, eggs, butter, and, in fact, anything along this line they could get. I applied a weak solution of iodine (one part tr. iodine compound to four of boiled water) night and morning. In a few days she began to improve. This was the only time I saw her for six weeks. The medicine was renewed every few days.

Six weeks after my first visit I was called to the same place to see another patient. I saw the girl also. The feet and hands had healed, she had taken on flesh, the mind was right and apparently she was cured and looked like an intelligent girl of her class.

Yesterday I heard that the eruption was returning on feet, ankles, hands and wrists. She has had no treatment for a month or more. Was it pellagra? No other member of the family (consisting of an old negro man eighty-seven years old, his daughter, mother of the girl, and several other children, some younger and one older than the patient) has been affected. What do you and THE CLINIC family think of the disease and treatment?

G. W. WOODS.

Broaddus, Tex.

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[Unfortunately the picture accompanying does not show the condition of the hands and wrists. Dr. Woods, in a later letter, says: "The patient is losing flesh again and the eruption is returning, also the swelling and other symptoms." The face lacks

the peculiar expression, one of hopeless despair, so characteristic of pellagra. Earlier in the disease, however, during the first attack, there was the mental failure so often found.

It is quite likely that the return of symptoms is one of the frequently recurring attacks which are quite characteristic of pellagra. Without further data, however, we do not feel justified in making a positive diagnosis.

Dr. Woods gives the following reasons for thinking this case one of pellagra:

"1. The condition of the alimentary canal, from lips to intestines.

"2. The fearful diarrhea.

"3. The characteristic eruption.

"4. The complete loss of intellect.

"5. The emaciation (to skin and bone), with the peculiar animal-like cry or whine."

The doctor says that he has been actively engaged in general practice for twenty-seven years but has never before seen or treated anything like this.

The medication employed by the Doctor, seems to us excellent. We make some suggestions concerning treatment on another page. We hope that the report of these cases may provoke much interest, especially as regards the possibilities of rational medication for their alleviation or cure. *You*, Doctor, are invited to participate, and we shall welcome helpful suggestions of all kinds. Don't forget the photos.—ED.]

A SUSPICIOUS CASE: WAS IT PELLAGRA?

Please give me what information and help you can in the following case:

Colored boy, 11 years old. Had a skin trouble two years ago, but his mother "cured him with coal-oil," so the family says. The eruption started in areas which would get hard and scaly, the scales falling off in two weeks. The skin would be brighter under the scales. The eruption lasted two weeks, then gradually the skin returned to the natural color. The head and tops of the feet and hands were affected then. I saw him February 15, 1909. The boy had stiffening of the neck, the head being drawn back, this lasting ten minutes. There was an attack every other day till April 15, when the skin broke out in little black velvety splotches, four inches by two inches, all over the body. These showed pinhead-sized blisters and ran together, then the skin came off, leaving a raw, pale-pink surface with a milk-like secretion (scales looked like ichthyosis in white people). As one place healed up another part broke out. The muscles over the affected parts (especially extensors of limbs) would get stony hard.

Limbs, chest, neck and face were worst affected. The child's voice got husky and his mouth and connecting mucous membranes got raw and showed same as raw surfaces on the outer side of the body. The child lost flesh. No sign of insects, but living in a hut crowded with many others, there was poor ventilation and little sunshine got into the house.

Present condition: Some places present black areas where the skin has just healed and which are darker than the healthy skin; other parts, a mass of dried-up blisters, run together and ready to come off. The skin of the entire penis is in the latter condition. The tongue is covered with white blisters. Lower abdomen sore and painful. Urine red and there is painful urination. Has headache often, but seems to be of good sense for his kind.

Family history: Mother died April 25, 1909. Would not allow examination and could find out nothing, except that there was persistent constipation. Father has never been sick. Maternal grandfather had syphilis. A sister died of tuberculosis. A half-sister died of the same trouble that this boy has, but only the backs of her hands were affected. She died in three weeks. It was called "black-hand."

C. M. S.

——, Arkansas.

[We regret that the doctor prefers not to have his name used. The case which he describes is a very interesting one. While it has been suggested that this is a case of

pellagra, the symptoms are so masked and confused that we do not feel justified in making a diagnosis. We shall ask our readers to read the description carefully and give opinions. We wrote the doctor for further data, and asked him for photographs, but unfortunately before he received our letter the patient had passed away. In reply to our inquiry as to the kind of food which this negro boy had, the doctor replied:

"The negroes have been hard up here for the last two years, as a result of the poor crops and the low price of cotton. This has compelled them to eat cheap food, and a large number have lived almost entirely on fish and corn-bread. A great fault of the negro is carelessness, and sometimes they leave wet dough over until the next meal, after it is prepared before cooking. As a result the meal ferments.

"There have been about twelve cases of this disease in this vicinity during the last six months. I have had three in my own practice and know of about five others that have had no doctor.

"Dogs die here quite frequently of a condition known as 'black-tongue.' Do you suppose this may be the same disease?"

There are some facts that suggest the possibility of this being pellagra. It will be noted:

That the skin eruption commenced on the hands and feet and on the head.

That "limbs, chest, neck and face were worst affected."

That the skin was left dark after the eruption has healed up.

That there was sore mouth.

That there was headache.

On the other hand, the widespread distribution of the eruption militates against this diagnosis, though Lavinder says that "Cases have been described when the erythema involved the covered parts of the body or was, indeed, generalized." The "pin-head blisters" and the "milk-like secretion" are not suggestive of pellagra. The muscular spasm, especially of the neck, does not seem typical. Then there is no report as to the presence or absence of diarrhea, of body wasting, of chronicity or acuteness of course, of backache or other nervous disturbances, and no special evidence of the melancholia so often terminating in insanity which is present in practically every case.

On the whole, we confess to a very serious doubt as to this being pellagra, though our lack of acquaintance with it leads us to await further reports and the opinion of others. What was it?—Ed.]

GLONOIN AND STRYCHNINE

One evening during the hot weather in September I was called to a student who had collapsed just before the condition examinations. The young man had been studying mathematics for about sixteen hours a day, neglecting food, sleep and exercise; and the extreme humidity, as well as a little alcohol, had caused a collapse.

I found him in syncope, almost pulseless, with extreme pallor. Bystanders had loosened the clothing and sprinkled him with water without effect. I slipped a granule of glonoin into his mouth and he soon revived; but the pulse continued so weak that after about three minutes I gave him 1-67 grain of strychnine arsenate, telling him to chew the pill. He did so, and in about two minutes he began to show the full effect of the drug, i. e., tonic convulsions with episthotonos. This lasted for twenty-five minutes, after which time he felt all right and was able to go home alone. The bystanders were much alarmed, but I knew he would be over the convulsions in short order, though I was surprised to see so great an effect from the small doses.

This illustrates pretty well, I think, the advantage of the small dose, repeated to effect. The alkaloids, in fact, are quite the most effective drugs, and the laity is not slow to appreciate this fact.

Malcolm Dean Miller.

Boston, Mass.

HOW TO GET YOUR SHARE OF BUSINESS

It may be my title is a misnomer, for it would seem as if, when it is simmered down to making a living off an average

of about one hundred families each in the larger towns and cities, one's share would still be small. So I fear I am urging you to seek more than your share. It all resolves itself into a question of "the survival of the fittest." It is the law of business and the law of life. Doctors cannot ignore conditions as they are and live according to some beautiful theory. It is appropriate to quote again these words: "Gentlemen, it is a condition that confronts us, not a theory."

The condition is, one doctor to about every one hundred families, fifty of whom are in the habit of paying the doctor's bill, and fifty who don't, can't or won't. The élite well-to-do may have a "family physician," but the workers, the masses, are moving and changing about, following the factories—anywhere for a job or a better job. The doctor who does not study economic and industrial conditions is simply giving away a large part of his work. It was probably after checking off his "deadbeat" accounts that the college professor said to the senior class, in my hearing: "Boys, medicine is a noble profession, but a damn poor business!"

It is a poor business because doctors as a class have made it so. As business men, doctors are milk-sops. A few have the native business talent and are today wearing the togas of power. I am urging that doctors reform their business methods and teach the public to appreciate our work and pay for it the same as dentists have done this bit of public education. If it is true, as asserted by good authority, that doctors on the whole collect but half their charges, we should be just as well off if we cut charges in half, and make everybody pay. Surely, the present slipshod business methods are an injustice to our good patrons, doubling our work, half of which is financially nonproductive.

The injustice of poor collecting does not stop here. It goes further. The well-established busy doctor may not miss a few thousand each year—work that he does for the not-paying. But the younger doctor, struggling to get his start, is all the more hindered by his slack, easy-going opulent brother practician.

Now, then, with these professional and economic conditions facing us, how may the average doctor get his business? I have already emphasized the necessity of an up-to-date office, and of doing real scientific work, nor only in treatment but in clinical and laboratory diagnosis. I have urged the value of "doing things" for the patient that have effective value as well as the psychologic result of holding the patient. All this may be done and still the doctor not be busy. Except in small towns, the word-of-mouth publicity is a slow process.

In the village the word flies about that Dr. So-and-So has "one of them new-fangled x-ray machines." A good homeopathic brother I know got a dinky little static machine and spread the news about until the whole countryside had called to see it. It was effective advertising, yet I doubt that he could turn the crank fast enough to get even good static results, let alone any x-ray work. It was like the old doctor in my native village. He bought an old wooden-barreled microscope for five dollars, so that, he said, he could fill out his insurance papers and write "yes" after the question: "Have you a microscope?"

Those of us in the towns and cities, how shall we gain public attention? The authorities of our organized guild place the penalty of excommunication on him who dares to advertise in any open way. Some of the ambitious ones get considerable advertising by the newspaper-story stunt—the remarkable operation; the terrible accident case; the sensational life-saving heroism of blood-transfusion—all these and more are worked overtime. The time-worn method of singing in the church choir; lodge, church and political activity; now and then something tragic, like the discovery of burglars in the wee hours of night when making a late call; one's automobile stolen or horse and buggy run off by thieves; occasionally getting into a street-car accident; all these help to teach our "great name" to the public.

But, alas, in many places newspapers are requested by official resolution of the local

medical society not to publish the doctor's name in any case-story. The younger men wonder why the busy and established men urge this action; they wonder whether it is a game of "what-I-don't-need-the-other-fellow-shan't-have." The young man feels as if the hospital-staff stunt, the corporation-service and the "specialty" graft are all about as clever samples of medicopolitical wire-pulling as any real-thing politician could be proud of. The young man, with his well-equipped office, his careful, up-to-date training, resents the necessity of waiting five to ten years for his share of the business, when a few men are collecting large incomes and besides doing a lot of free work which the young man rightfully should have.

Considering all these things, if I were a young man and had located in a good-sized town where the local votaries of our guild had the control of the hospitals, the corporation service and all the paying practice, and if I had no "pull," no "stand-in" with the powers, then I should stand alone, and let the public know who I was, where I could be found and what I had to sell. By any honest method I should fit up a first-class office and make myself as much an all-around doctor as I could. Then I should do what I could decently to take an interest in the public affairs of my community, shunning the underhanded methods of advertising. If I were socially or politically mentioned I should try to have the "Dr." part left out as much as possible, to avoid the appearance of seeking publicity in that way. Then I should print notices—a card or circular—and mail or distribute them in all the homes of my neighborhood: neat, dignified announcements, giving my name, location, office-hours, and mentioning the work I had to sell. I should do this with the same frankness that a banker uses when he tells of the soundness of his bank and solicits deposits.

If I could consistently, when opening practice in a new town, and if I had a really nice office to show, I should hold a public reception, show myself and my working tools, making it a social as well as a business occasion. If I did all kinds of office work as well as a calling practice, or if I did office work only, I should not hesitate to use the newspapers. I should write interesting advertising stories in which I knocked advertising pretenders, called "quacks," and condemned their contemptible methods. I should also condemn the buying and using of "patent medicines." I should hold up to scorn all hypocrisy and underhand dealings, let it hit whomever it might. In these stories I should name my office fee, medicine included, calling for payment in cash. If I thought wise, I should make my charges lower than the schedule of the book-accounting plan. I should make it plain that everybody would have to pay, and in surgical cases the fee would be agreed upon in advance.

If this sort of prowess in a business way offended the guild and I were boycotted, excommunicated and in a way ostracized, I should not be alone. Only the powerfully elect would openly condemn. The rank and file will applaud and admire your business temerity and professional competency. Remember that the average doctor gets no help from the official organizations. A great solace will be yours: the respect and confidence of the public, and ready money to pay your bills in addition to a "rainy-day" surplus. The more other doctors use their hammers to knock you the closer will the people stand by you.

By this method your office business is cash, and your calling practice is practically so. You have no loose ends wasting your time and energy. If you are in position to own a runabout, your mornings for calls and your afternoons and evenings up to 8 p. m. for office work enable you to attend twenty to fifty patients a day, and do good work.

I am not spinning an idle theory. I am talking from an experience of what I have done and am doing now. My plan eliminates the "deadbeat," the specialist and the surgeon. It enables the doctor to do honest and competent work and to give his patients a service not to be compared unfavorably with the best.

I fully realize that the methods I advocate will be startling and perhaps repugnant to many who live in the haze of an old-time theory of the Code. Those who bask in the luminary of the Elect Ones, and who hope some time, if they live long enough, to slip into some one of the "seats of power," will say my plans are "unethical."

To me the Code is like the constitution of the United States—a sacred set of laws, yet not unamendable. Life conditions change and our systems of law must keep pace with these changes. Right is always right. When by appealing to the "unconstitutional" principle a great trust kills competition and grows opulent by unjust methods, that may be legal, but it is not right. So, too, when organized medical politicians control hospitals, corporation service, and even dictate by "official" mandamus what drugs we shall use and what methods we shall employ to get business, by appeal to the "unethical" principle, it may be professionally legal, but it is not right.

If a doctor does right by the people, does the right kind of work, such as I am trying to outline, does no immoral work and lives a clean life, he need not fear the Court of Last Appeal, where the Golden Rule is the basis of moral law.

Few doctors care to take an independent stand. They fear to be ostracized and boycotted by the "ethical elect," yet many, prompted by avarice or forced by starvation competition, practise all the petty underhanded advertising schemes. They cut in and force themselves into the family practice of older men. They "work" and "leg-pull" their patients, they scheme and bamboozle until their "ethics" is but a cloak to cover a real unethical life. Some of these are the first to cry "Quack" at another doctor who is unlucky enough to get found out. Like so many ink-fishes, they besmudge the neighborhood to protect themselves. Many a woman of loose morals is the handiest with her tongue to point criticism and suspicion toward a more worthy sister. So, too, many a medical society membership is a sort of license to bamboozle in secret.

What we need in America is a revised code, a national registration board made up of retired men, a new and independent medical association, the guiding principle of which will be a square deal for all and a fair chance for every man. In short, an organization of the many—not for the few. A medical democracy, instead of a pretentious plutocracy.

There are those who are so set in the ruts of habit, so steeped in the old fogyism of ancient professional dignity, who have no faculty for self-advancement and self-education, that my argument will not touch them. Such are hopeless. My appeal is to the man who recognizes social and business conditions as they are, and who sees no sacrifice in honest publicity of anything but a false and stilted dignity. The banker, the merchant and even the preacher will commend him, for each of these knows the value of advertising. The people will swear by him, for he gives them skilful service at a moderate expense—in short, a real-thing square deal.

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[I have read this paper through half a dozen times, each time putting it down with the feeling that it would be unwise to publish it. The methods of publicity which the writer advocates are not free from criticism—indeed, though his argument is "sugar-coated," there is in it palpable excuse for the open medical advertiser. This form of practice we have opposed and shall oppose. Once admit the entering wedge of argument and there will be no stopping until every Sunday newspaper and every bill-board will declare in glowing terms the superior virtues of some member of our profession—and the man with the longest purse will get the most of the business, irrespective of moral character or professional fitness. Any form of publicity which may lead to a state of things like this is absolutely demoralizing, and to put it plainly, dead *wrong*. I can see it no other way, and I feel that any clean man who will try to think the problem out for himself, honestly, will come to the same conclusion. Merit not money should count in achieving success.

There is, however, a very apparent need for business "gumption" among us. It is not right that men with real ability, who have the mental equipment and the proper skill for success in medicine, should be forced into the background and compelled to stay there through excess of modesty or a false conception of medical ethics. There should be clean yet effective methods and application of publicity, without need for the insidious and undignified "advertising" schemes to which the young man just starting his career so often feels compelled to resort. He wants work. He wants to make an honorable living. How shall he advise the people of his existence and of his qualifications?

It is to help in the answer of this question that we have printed this "incog" article. Some of the methods advocated seem to us good; others bad. We hope that its publication will set others to thinking, and that as a result we may get a fund of suggestions from our readers—*all* good, clean, justifiable in the conscience and heart of any straightforward, honorable physician.—ED.]

ADVANTAGES OF ALKALOIDS

While attending a postgraduate course at the Post-Graduate Medical School and Hospital in Chicago, in 1894, with my former preceptor and colleague, the lamented Dr. T. F. Calbreath of Cleopatra, Mo., I listened to a lecture by Dr. W. F. Waugh, on the treatment of typhoid fever. This lecture made a profound impression on me, as up to that time my success in the treatment of this disease had been anything but brilliant. In his own convincing and logical manner Dr. Waugh also alluded to the splendid and positive results being obtained through the use of alkaloidal medication.

I well remember how Dr. Calbreath and I discussed this lecture in our rooms on Honore street that evening and decided to take a stock of alkaloids home and familiarize ourselves with their administration. Dr. Calbreath was one of the most loveable men I have ever known, with a sweet, childish simplicity, all unconscious of self, whom to know was to admire, and whose acquaintance when cultivated was like a pleasant book; his mind was as brilliant as the sparkling stream, and his resources seemed to have no end. Together we studied and "tried out" alkaloids, one after another, until our *armamentarium medicorum* was increased very preceptibly.

Since that time Dr. Calbreath has passed to his reward. I now sometimes hear physicians in our societies and in private making statements as to the uselessness and uncertainty of alkaloids, and whenever I do I am convinced of one of two things: either that the doctor does not read or investigate, or that he is among those who prescribe in the same old routine way from the time they leave college until they are summoned to their last repose. Score one for the doctor who conscientiously dispenses his own medicines.

Experience shows that it is the doctor who relieves, and at once, who is appreciated. If I were in dire distress I should feel most kindly to the physician who came to my bedside with the remedy needed ready to his hand, rather than a prescription pad in his pistol pocket, which would be sent to a convenient druggist (if one was near) while I was still suffering. It is the patients you keep alive who come in and pay their bills and return for your services and bring their friends with them. A pleased patron does more advertising for you than any other medium yet known to the profession.

It pays to be square and adhere strictly to the truth; this is the only course which will succeed in the end.

Do not make assertions to impress patients with your profound knowledge, for instance, tell some poor woman, after a severe labor, that "if she ever becomes pregnant again, she cannot live through it." Only think, Brother, what that poor woman endures, in fear of the occurrence of that which every faithful wife may naturally expect. But worse still, if the expected really happens and she is to become again a mother, the anguish of heart and mind must be almost unbearable. Spare the poor creature rather than try to impress her with your super-

natural accomplishment in divining her future.

A prescriber will say "it costs too much to keep one's supplies." True, it costs something to have the best of anything; but after all, it is better to buy *good* supplies in small quantities and have them fresh. Insist on having *the very best.* Do not your patrons who place the health and lives of themselves and their families in your hands demand it? And if we shirk a known duty are we not responsible, not only to those who implicitly trust us as medical men, but to our Maker?

There was a time when "allopathy" and "homeopathy" prevailed, which meant either the maximum or minimum in dosage. And without drawing on our imaginations strongly at this enlightened time we can easily see the weak points in both systems. Thanks be to honest investigators (in whose class is our own Dr. Abbott) we have now struck, as it were, a golden mean between these two old schools, in which we resort to "any means that meets the ends."

If cold water (or for that matter any other means at our disposal, medicinal or non-medicinal) is indicated, use it internally, externally and eternally until results are obtained. In short, *be a doctor* under any and all circumstances. I do not believe that any one of us is fully living up to his full opportunities as a physician unless he diligently avails himself of *all* the means, the use of which will the better enable him to cure disease and relieve suffering.

Think what calx iodata alone has done for the relief of suffering and the saving of life, and the prompt results from more than a score of alkaloids, specific, so to speak, in their ability to control abnormal conditions. Yet we find knockers—and why is it, Brother? Just take an inventory of yourself and your methods and results and compare them with those of your neighbors who have already experienced a change of heart. Try these new methods, and I believe your enthusiasm will be as great as my own.

This is already longer than I had expected, and with one more allusion I will close. If the alkaloidal system only afforded the three drugs so frequently and successfully used by myself in heart insufficiency, in advanced life—where there is lack of compensation, manifest by shortness of breath and other well-known symptoms—viz., strychnine arsenate, hyoscyamine, and glonoin, I should feel well repaid for the change of method, since this combination will restore the equilibrium of a failing heart and enable a patient to live in comfort for many years, in conditions where all other remedies fail.

These are only a few of the advantages of the alkaloidal system, but sufficient to show its superior efficiency in a vast number of diseased conditions. This reminds us that we should be earnest and progressive and endeavor "to do that we do *well*," as exemplified in the schoolboy's declamation:

> The man who wins is the man who does.
> The man who makes things hum and buzz;
> The man who works and the man who acts—
> Who builds on a basis of solid facts;
> Who doesn't sit down to mope and dream,
> But humps ahead with a force of steam;
> Who hasn't the time to fuss and fret,
> But gets there every time—you bet!

S. E. BAMFORD.

Hastings, Nebr.

THURBER MEDICAL ASSOCIATION

A medical society which is doing good work of a peculiar character and which may well serve as a model for many other local medical organizations is the Thurber Medical Association, of Milford, Massachusetts. We have just received the Manual of the Association, prepared by our old and good friend, Dr. J. M. French. It contains photographs of deceased members, a large amount of statistical information concerning the society, biographical details concerning physicians who have passed away, and many other items of peculiar interest to every member of the association.

This association is building up a medical library which is free to all its members; its programs are of the highest scientific and literary character; and its social features are unusually attractive, serving to bind its membership into a closer union, treating them as friends and brethren as well as

professional colleagues. Would that we might have many other societies like this one.

EFFICIENCY WITH INTESTINAL ANTISEPTICS

Dr. Waugh's article in October CLINICAL MEDICINE is full and to the point, the purest wheat without chaff. In my March journal I jotted the following note:

"We fail in our therapeutics nine times out of ten because we fail to give dose enough—and this is especially true in the use of intestinal antiseptics. Empiricism is one of the greatest foes to rational therapeutics."

I am an exact follower of Dr. Waugh's method of treating typhoid fever. I never have any delirium after I "clean out and keep clean." If ever the above should fail to relieve the delirium I should certainly think of digitalin in large and effective dosage. The above is the result of twenty-four years' experience, with but one death, and that due to perforation of the bowel.

J. H. FRETZ.

Lambertville, N. J.

[Absolutely true! "Dose enough" may represent only a very small quantity of the drug, or a great deal of it. The essential thing is to be able to *know* that what we are giving is having the result expected from it. In no condition is this more important than in the cleansing and disinfection of the alimentary tract.—ED.]

OBSTETRICAL TEACHING

The president of the American Gynecological Society has appointed a committee to report, at the next annual meeting in Washington, on "The Present Status of Obstetrical Teaching in Europe and America," and to recommend improvements in the scope and character of the teaching of obstetrics.

The committee consists of the professors of obstetrics in the Columbia University, University of Pennsylvania, Harvard, Jefferson Medical College, John Hopkins University, Cornell University and the University of Chicago.

Communications from anyone interested in the subject will be gladly received by the chairman of the committee, Dr. B. C. Hirst, 1821 Spruce St., Philadelphia, Pa.

OBSTETRIC FANCIES AND FACTS

Can a child aid in its own delivery? Certainly not; it is a mechanical impossibility. Some women believe such stuff, I know. I have heard the idea mentioned. The amount of rubbish that is believed in the lying-in chamber is astonishing. Some other examples are: That an eight-months child never lives. That a child can be "grown to the side." That a girl is higher in the womb than a boy or vice versa. Seventeen-pound children. That a child can be "turned over three or four times" (podalic version). That breast milk is "good for sore eyes." I once had a woman claim that a child died in four days because I "cut the cord too long."

As a Japanese sage once remarked, "It is difficult to know what is going on in the minds of uneducated people." These things are too absurd for serious consideration.

In regard to occiput-posterior presentations, I have sometimes succeeded in rotating them by the shoulder, as spoken of by Dr. Rittenhouse. The manipulation, however, may cause the prolapse of the cord or a foot. Both of these accidents have happened to me. In one case I had to replace the cord, and finish the rotation with the forceps, and to perform a version in the other.

An instrument not appreciated as it should be is the short Hunter forceps. All other short forceps that I know of are useless. The lock is positive, being a ratchet and cross-bar, and the handles so short that they can be applied as the patient lies in bed. In cases of inertia, I have even applied them to a floating head in this manner. For the after-coming head, in a version where seconds are vital, the instrument is invaluable.

When are forceps "absolutely necessary?" "Never," according to some old-time practicians. Such men however should steer clear of city tenement practice as it would profoundly modify their ideas. The experience of those men coming here from the country always cures them of this notion. Personally I use forceps in 75 percent of my cases, and I don't apply them the first hour of labor either. True, it is "interfering with nature," but when all our living is more or less in defiance of nature, we cannot expect all our functions to remain uncomplicated.

H. O. CARRINGTON.

New York City.

CHIGGERS: CALCIUM SULPHIDE

In the October number of THE AMERICAN JOURNAL OF CLINICAL MEDICINE, page 1113, I see some brother in Missouri has evidently been tangled up with "chiggers", or red-bugs. I find that sodium-chloride solution, one ounce to the pint of warm water, is practically a specific, if you will bathe the limbs thoroughly with it before going out in the grass or weeds. Petrolatum jelly applied to the bite kills the little fellows and affords instant relief.

I have also found that chiggers, ticks, fleas mosquitoes and sand-flies will steer clear of the mortal who is saturated with calcium sulphide, and by the way, I find calcium sulphide given to saturation in scabies (and the Lord knows every negro in this country is afflicted with scabies) is giving me good results. I use calcium sulphide everywhere that I have pus and frequently where there is no pus.

ISAAC P. ISRAEL.

Village, Ark.

COPPER ARSENITE

Dr. C. Stanton of Blunt, South Dakota, writes that he is using copper arsenite in combination with zinc sulphocarbolate in the treatment of intestinal troubles and obtains the best of results with these remedies. He prefers a combination of copper arsenite with corrosive sublimate and morphine sulphate in small doses, adding 5 grains of zinc sulphocarbolate to each dose. This combination is well borne by the stomach and seems to be peculiarly effective therapeutically.

CHARCOAL HABIT

Dr. George B. Lake some time ago reported through the columns of this journal a case of charcoal habit. Since then he writes that he has heard of several other cases and he wishes to know if other members of the "family" have seen similar ones. He will appreciate if they will report any such cases to him direct, giving him permission to use these reports in a clinical study. We urge everyone who knows of such cases to communicate with Dr. George B. Lake of Wolcottville, Indiana.

A REPORT ON CHROMIUM SULPHATE

In the October number of CLINICAL MEDICINE you ask for the experiences of your readers with chromium sulphate. I have used it in three cases with good results so far. The first case was epilepsy. In a personal letter to me Kolipinski said he had used chromium sulphate without any success in epilepsy. I thought I would give it a trial in a case which had come under my care.

Warren H., age 25 years, American, white. Occupation, butcher or farmer. Father living and in good health; mother died from typhoid fever. He drank whisky from the time he was eighteen years of age, sometimes a pint a day, and smoked cigarets, two boxes a day, and was a ball player of some local reputation.

About six years ago "fits" came on every Sunday night and then quieted down to once in two months for a long time, or just a short time before I was called to see him in a severe attack. He was then employed at our local mill, painting the outside of the building. I advised him to leave the mill and go to the country and farm, which he did.

I cleared out his bowels, advised him as to diet and gave him chromium sulphate, 8 grains after each meal.

He had an attack April 1, a mild attack May 11, and June 24 a threatened attack (did not lose consciousness). September 9 he had another attack, but a very mild one. His general health is better and he does not drink or use cigarets. Do you think the drug helped him?

I have another case of some interest. A young woman, age 33, married, mother of four children. She has always been hysterical and has a uterine fibroid. The pains and aches she complained of would fill a book.

Four months ago I gave her 8 grains of chromium sulphate after meals. Improvement was immediate. She took up her household duties, helped her husband with the gardening, nursed a child through typhoid, and her fibroid is getting smaller. She had been advised to be operated upon and refused.

I used chromium sulphate in another case, one of nervousness. A woman, aged 30, was helping a girl friend make arrangements for her wedding. Before the wedding took place my patient collapsed and was compelled to go to bed. Could not sleep and was mildly hysterical. Chromium sulphate and rest straightened her out very nicely.

Doctor, this is my first attempt at this sort of work and I don't get along as I should like.

W. H. COWAN.

Donora, Pa.

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[I wish every other man would do as well! It isn't the ability to write eloquently, in beautiful literary style, that we need. Short articles, like this one, recounting personal experiences in treating the sick, getting "right down to brass tacks," in the homelike, everyday language which you use in everyday life, we can always use—and lots of them! I wish we might hear from others regarding the chromium sulphate.—ED.]

LEPROSY IN THE PHILIPPINES

Enclosed I send you a photograph of a group of lepra patients in the San Lazaretto Hospital, Island of Luzon, P. I. There are said to be something over three hundred of these poor unfortunate confined here, and they are in all stages of the disease.

Some cases of leprosy, seen in the Philippines

The three subjects shown, who stood to have their picture taken, are all females. The little girl is just taking the disease, the others have had it for some years. As you will observe, the disease attacks the hands and feet first and gradually creeps up. The fingers and toes just simply dry up like dry-

rot and crumble off. No pain, no blood, no sensation, and as soon as a vital organ is reached the patient just quietly goes to sleep, never to awake. The variety there is what is known as lepra negra, and often starts with tubercles which swell and dry up slowly, leaving a dark scale and dead substance, this slowly crumbling away.

It is believed there that the lepra bacillus is acquired mostly by the custom of eating decayed fish and other half-rotten foods. I have often seen the natives hang up their fish for three or four days, till about half rotted, then putting it into a pot with vegetables for a chowder feast. The Lazarme district comprises about 100 acres and is kept in good sanitary condition. Since the Americans have been in charge many improvements have been made there.

LOYAL ALLEN.

San Antonio, Tex.

MODERN TREATMENT OF SYPHILITIC LOCOMOTOR ATAXIA

The writer claims no superior knowledge or unusual clinical advantages as regards "locomotor ataxia" (syphilitic). What knowledge he may possess is drawn from teachers, textbooks, older physicians, and careful study of one clear case.

One or more of my fellow practicians gave my present patient to understand that he would grow steadily worse and that there was no help for him. My object in this "outline" is to show that "something can be done," by persistent scientific effort. The progress of the disease may sometimes be arrested. What is "medicine" good for, if it cannot alleviate suffering, cure disease and prolong useful lives?

Doctor, "lend me your ears" (or eyes).

The diagnosis being unmistakable by (1) ataxic gait, (2) argyle-Robertson pupil, (3) loss of patellar reflex, (4) luxation of hip-joints, (5) gastric crisis, and (6) lightning pains, I began treatment about March 15 last, with the following course:

Potassium iodide, mercurial inunctions, mild catharsis, the tonic tablets of triple arsenates with nuclein, and an occasional cabinet-bath. At the time the patient could walk about one-eighth mile. Complained of feet "going to sleep," numbness of legs, appetite variable—but was able to superintend his business. I introduced galvanism at the bedside, hot foot-bath, and vigorous rubbing.

Later the treatment was marked down to a "system" about as follows—varied according to condition of patient:

Daily evening treatment at bedside: Galvanism on soles of feet, ankles, calves, knees, flexor muscles, gluteal muscles and lower half of spine, fifteen minutes. Vibration on the same about five minutes. Hot foot-bath and massage five to ten minutes, closing with a thorough rubbing of back and lower extremities.

Drug treatment: Potassium iodide alone proved irritating, so we used syrup trifolium compound, and pil. mixed treatment (Chichester), giving two to three pills and one to two doses (2 teaspoonfuls to the dose) of liquid daily. "Pil. mixed treatment" is a boon to sufferers from syphilitic lesions.

When in doubt, doctor, give iodides. Patients suffer from syphilis and "know it not." We use also heat (bath-cabinet) about once a week, followed by alcohol-rub. Also a standard tonic. For tonic effect I am pleased with syrup of hydriodic acid. It contains no iodine and does not upset digestion.

Under this system the patient, a business man of 56 years, is comfortable, transacts his business, rides out and can walk about one-eighth mile with a cane.

Fellow practitioners! Have you any similar case? If so, will you give your methods of treatment. Our minds should be "ever open to the sunshine and the morning, ever ready for new truth and new duty."

F. A. PITKIN.

Palmyra, N. Y.

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[The editor ventures to "butt in" with a few suggestions. First, good nutrition is of the greatest importance; hence the necessity of paying special attention to digestion; the sweeping out of alimentary debris with mercury and saline laxatives; bowel steriliza-

tion with the sulphocarbolates. Second, keeping up "the tone," as with the arsenates of iron, quinine and strychnine. Third, an attack upon any syphilitic taint: Iodine, of course, as Dr. Pitkin suggests. We like calx iodata in large doses, also iodoform internally. A combination of mercury biniodide, arsenic iodide, iodoform and phytolaccin gives excellent service. Nuclein also should be used and in full dosage. The physical methods advocated by Dr. Pitkin, *plus* systematic education of the incoordinating limbs, is always in order, and important.

We ought to have more articles on the treatment of syphilis, in all its stages and all its forms, with a multitude of short, practical clinical reports. We appeal to the "family." Please give us "a big bunch"—and *now* is the proper time.—Ed.

AN INTERESTING BRAIN INJURY

On Nov. 11, 1908, I received an urgent call from the country, about three miles out, to attend a case of gunshot accident. The

The portion of the gun which was imbedded in the brain. Exact size

patient, a boy of 15, had loaded an old-time rifle with a charge of black powder and No. 6 shot and fired it, with the result that the weapon burst. He managed to get to the house with assistance. I found him with a wound the diameter of two silver dollars, almost in the center of the frontal bone and about an inch above the root of the nose. It was November, and about 4 o'clock in the afternoon. I was alone and was refused permission to take him to the hospital, so I had to do the best I could. I administered chloroform, as he was perfectly con-

The gun which exploded

scious, and by the light of one kerosene lamp I cleaned out the dirt, pieces of wood, etc. The skin was absolutely destroyed, both plates of the frontal bone gone, but the brain substance seemed little the worse, except that it was badly bruised. I loosened the skin over the bone enough to be able to draw it together to close the gap, brought the edges together and left in the wound a fair-sized drainage tube.

The patient rallied nicely from the anesthetic. Next day he was in good condition but complained greatly of a severe headache, which was not to be wondered at. In three or four days there was quite a profuse discharge of pus with a temperature of 101°F. I irrigated the wound freely, and he continued in this way for a month. His father said he would dress the wound himself and save expense, and very unwillingly I had to comply.

On. Dec. 30 I was sent for again and found the boy wildly delirious, with a temperature of 105°F. The ice-bag, gelseminine and aconitine controlled the condition and he again improved. All this time hospital treatment was absolutely denied. On January 22 he and his father walked into the office. He complained of headache, the wound was still discharging pus, he had diplopia and the right eye was displaced outward and downward, with ptosis. His

speech was almost natural, though a little thick. The right pupil was slightly enlarged.

He went on much in this way until the end of February. On the 9th of March he became delirious, the temperature rose and he became drowsy. I told his father he evidently had an abscess in the brain and the boy must go to the hospital and receive proper care or he would die. I took him up in the ambulance and examined him with the x-ray. I found a deep shadow situated about 2 1-2 inches in and about an inch above the top of the orbit. I reopened the wound and worked cautiously toward the body. After a few minutes I touched it and with the aid of a pair of strong forceps removed the entire breech of the gun, together with a screw. I was not satisfied yet and upon further exploration thought I detected fluctuation in the right frontal convolution. I slipped a bistoury along my finger and out gushed about an ounce of foul-smelling pus. The abscess cavity was well irrigated and the wound closed, with a larger drainage tube left in the cavity. Next day I found him with a temperature of 100°F., headache almost gone and feeling, as he said, "fine."

He made an uninterrupted recovery, ptosis and diplopia disappeared, but the wound took a long time to fill in. The breech and screw weighed one ounce and 84 grains. They had been buried deeply in the frontal convolution from Nov. 11 to March 11, a period of four months.

I suppose a good many will say, "Why didn't the fool find the breech the first time?" Well, I wish they had been in my shoes, without assistance or light, and a crowd of weeping women helping the disturbance.

This case illustrates the amount of injury the brain can withstand and recovery follow; the existence of the socalled silent areas in the frontal convolutions; the advantages of hospital appliances; and the utter foolishness of the dread people seem to have of such institutions. He did not present aphasia and paralysis of the muscles of articulation, or loss of understanding of speech, which would show that the injury was on the right side and not on the left. I enclose two photographs, one showing the size of the breech, the other one, of the rifle in miniature.

The patient is perfectly well today and is in possession of all his faculties. He has quite a marked depression on account of the destruction of the bony tables, but he is worth several dead ones yet.

HUGH JAMESON.

Titusville, Pa.

GREAT ANATOMISTS BEFORE VESALIUS

My attention has only just been called to Victor Robinson's article on Vesalius and Anatomy in the September number of your journal. I do not know where Mr. Robinson obtains his information in regard to the history of anatomy during Vesalius' time. Certainly not from any standard history of medicine.

Vesalius was not the first to do dissection, for it had been continuously practised and public demonstrations on human cadavers had been given at the Italian universities regularly for more than two centuries before his time. Mondino's "Manual of Dissection," which was commonly used in the medical schools of Italy—and there were some twenty of them altogether during the fourteenth and fifteenth centuries—was originally published in the early part of the fourteenth century. Some magnificent work was done in anatomy before Vesalius' time. He well deserves the title of father of *modern* anatomy, but not in the sense that anatomy was not studied at all before his time. I have recently told the story of anatomy at this period in my book, "The Popes and Science."

As for church opposition to anatomy during Vesalius' lifetime, nothing could well be more absurd. The greatest school of anatomy in Europe during the last twenty-five years of Vesalius' life was in Rome. The great professors in it did some of the best original work that has ever been done in a corresponding period in the whole history of anatomy. Their names are household words all over the world among physicians who know anything about the history of medicine, and they include such men as Varolius, after

whom the *pons* is named; Columbus, who discovered the circulation of the blood in the lungs (he had been Vesalius' prosector and subsequently his successor at the University of Padua before being invited to Rome to become the professor of anatomy in the papal medical school); Eustachius, after whom a number of structures are named and who with Columbus and Vesalius formed the trinity of great anatomists who worked about the middle of the sixteenth century; Cæsalpinus, to whom the Italians attribute the discovery of the circulation of the blood, and not without reason; and Piccolomini, a worthy successor of even such great geniuses. In the next century we have Malpighi, after whom more structures in the human body are named than any other also taught here.

All the great teaching in medicine at this time was done down in Italy. The best of it was to be found in the Papal states. Bologna was in the papal states at this time, and there were two other medical schools in the same dominions doing excellent work. One of these was at Ferrara, the other at Perugia.

Do let us have the history of medicine and of anatomy out of standard histories of medicine and not out of the histories of religious differences, White, Draper *et al*, for there the *odium theologicum* has utterly perverted truth. Above all, let us not make little of what was accomplished for the medical sciences in the fifteenth and sixteenth centuries.

Jas. J. Walsh.

New York City.

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[Dr. Walsh, who is Dean and Professor of the History of Medicine in the Fordham University School of Medicine, New York, has written a number of books on medical history whose perusal will repay anyone interested in this important subject.—Ed.]

AN OLD REMEDY FOR TAPEWORM

In a late number of Clinical Medicine "C. B. H." calls for a remedy for tapeworm. If he will take about two tablespoonfuls of decorticated pumpkin seeds and grind them to a paste with two-thirds of a pint of water, administering at one dose, at bedtime, after fasting through the day, and follow with a dose of castor oil in the morning, then if there is any tapeworm in the intestine it will make its exit with the oil—and don't you forget it. I've never known it to fail.

George D. Stanton.

Stonington, Conn.

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[This is an old remedy for tapeworm, and a good one, too, in many cases. Unfortunately, in the experience of most physicians that qualifying word, "many," has to be used—for in as many more it fails, and fails absolutely. After the last word has been said we must reiterate our often-expressed belief that there is no single substance quite so effective in "getting after" the worm as male-fern. We prefer a combination of male-fern with castor oil, croton oil and chloroform. which lands his wormship practically every time—but the ingredients must be absolutely right.—Ed.]

DEALING WITH ABORTION AND THE ABORTIONIST

I consider it no breach of confidence to publish the following letter. It is like a slap in the face, an insult to me personally and to the whole medical profession, that such a request can be made in such terms:

Dr. ————:

I hereby write You as to whether You would help me out of my trouble. I am only six weeks pregnant and have been examined by doctors that tell me I can stand it easy to go th ough it as am strong. Now there are three that do that work here, but one is Catholic and had to quit, as the priest got after him, one charges an enormous price, and the third one is too busy having up to thirty patients daily besides calls. Well, Doctor, hope you can do something for me, as I dread to go to M——. And I shall see that you are paid. I would be in R—— within a couple of days, if I get to hear from you. Your name will never be given out, Dr., by me, everything will be strictly confidential—and what price have you? Please answer.

[Signed, full name and address.]

In my nearly twenty years of practice I have been approached several times with appeals to "help out" girls in similar "trouble," but never before in such a brazen way

as this. It brought forcibly before me the utter contempt for written and moral laws and the incredible selfishness on one side, and the insulting disregard of the doctor's position on the other.

"*And what price have you?*" Indeed! Has it, then, come to be regarded as only a question of paying the price in money? I hope not! But it seems that the time has come for something more than prosecuting the offending doctor—and possibly "the man behind."

We often read in the daily papers of the prosecution and sentencing of a physician for criminal abortion resulting in death; the doctor very often being convicted on the testimony of the man who was the real cause of the trouble, and who is let off for turning state's evidence. That is about the best that can be done under the existing conditions; but is that a remedy in reality, and justice in full? No! And how many cases out of the total come to light in this way? Very few I dare say.

Prevention of this crime is the necessity, and it should be and can be made effectual, I believe. At least it is worth trying.

In the first place comes the question of education, the teaching of morality and religion, in the schools and homes, and this is already up for discussion.

Then the laws should be enacted in every state making it a dishonoring, disfranchising crime to cause a woman to become pregnant outside of marriage. As the legal marriage is the foundation of all civilization, the disregard of this institution constitutes perhaps the gravest offense against the state. The cur who would first tempt and betray a woman and then try to buy himself free from the consequences of his baseness at the price of dishonor, pain and danger to the woman and through another dishonorable act by another man, and then turn traitor, as he often does, is too contemptible to be accorded a place in honorable society; a mark branded on his forehead would be none too severe a punishment for him.

It should be a punishable crime to terminate, or to request any member of the medical profession or anyone else's assistance in any way whatsoever, to terminate a pregnancy at any stage before term, without absolute indication as determined in consultation between at least two legally qualified physicians—this, whether the woman in question is married or unmarried. Furthermore, it should be the duty of any physician or any other person having knowledge of such attempt, or so approached, to notify the proper authorities, on penalty of being made an accessory to the crime. By the cooperation of all honest physicians in this way, each man in his own sphere of activity, the dishonest ones would soon be singled out and become an easy prey to the officers of the law.

These are radical measures, but the existing conditions certainly justify heroic treatment.

Criminal abortion should be punished with equal severity, whether resulting in the death of the woman or not; one life is taken at least in every case, that of the fetus, and the fine point made by lawyers as to viability should not come into consideration.

J. Henry Moeller.

Rugby, N. Dak.

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[We have repeatedly positioned ourselves on this problem. To bring the course of pregnancy to an end by sacrificing the life of the unborn babe, except to save the mother's life, can have no moral justification. The law brands it as a crime, and no physician should even consider becoming a party to a criminal act. But is it not going a little too far to mark as a criminal the man in the case—usually a hot-blooded but weak and inexperienced boy? Only in rare instances, I believe, is the suffering young woman the victim of deliberate seduction. She, like her partner in misfortune, has felt the fires of the most natural and human of all passions, which neither had the strength of character to resist and quench. It is unfair, indeed, that she should suffer most—there is the pity of it. If we should devote a little more time to telling our boys and girls the secrets of sex, its meaning and its dangers, our responsibilities would be less. There is too much prudery and, as a consequence, gross ignorance among the young, for which,

too often, they have to pay with years of suffering and moral degradation.—Ed.]

AQUEOUS PHENOL SOLUTION AND GANGRENE

Why do your patrons apply phenol *solution* to the human body in this enlightened age, when any schoolboy should know how fatally it is absorbable. I pour deep gaping wounds, when bleeding, full of the *pure crystal liquefied* by heat, with impunity, and after the bleeding ceases I pour in a mixture of equal parts of crystal phenol, chloral hydrate and camphor. I never have the semblance of an accident. In fresh wounds the blood is speedily staunched and they heal promptly without pus, while suppurating ones, treated with the foregoing compound, heal quickly. The same quantity of an aqueous 5-percent application would kill the patient in quick time.

It were vain and idle to attempt to detract from the superlative clinical value of phenol by citing isolated cases of positive malpractice but which should serve as an admonitory lesson to all intelligent practicians not to use again carbolic acid in aqueous solution. If your people must have weak phenol preparations, olive or almond oil will make harmless dressings and more effective and lasting than aqueous ones, whose employment should be considered criminal practice.

I have seen a postgraduate lesson on burns in Clinical Medicine. Crystal phenol liquefied by heat does the business nicely at once when fresh, relieving pain instantly, while the other compound does the same after the cutis has sloughed.

Raw potatoes finely mashed and applied as a poultice to fresh burns and changed as soon as it begins to dry, two or three times, is a sure and painless cure for burns, in an emergency.

One ounce of magnesium sulphate in half a pint of water, applied with compresses to burns frequently cures. The same salt, finely powdered, sprinkled over the entire surface after the blisters of fresh burns have been clipped off and then covered with a damp cloth also proves very serviceable.

Never apply pure phenol where there are watery or pus formations, but the compound of phenol, chloral and camphor is applicable freely in all such wounds and in any old sore. Remove accidental overflow of pure phenol promptly with alcohol; the compound does not require such precaution.

Robert Gray.

Pichucalco, Chiapas, Mex.

COMMON-SENSE GYNECOLOGY

In a recent Clinical Medicine, writing on "Common-Sense Gynecology," Dr. Chas. S. Moody has struck the key-note.

The only definition of a woman, "a constipated biped," still holds true, yet how many of our surgical and gynecological friends realize this condition as an important factor in the causation of woman's ills.

Let us dig down into this matter a little. Take a healthy female child. It grows, develops, romps, plays, eats and sleeps. She knows nothing of the ills which woman is subject to till she reaches the age of puberty. Then, says the surgical gynecologist, trouble begins.

But what about the cause?

Uterus enlarged and misplaced; painful, irregular or suppressed menstruation; ovarian pain, pain in the back, weight in the pelvis; vomiting, headache, dizziness, coated tongue, foul breath, eructation of gas; palpatation of the heart, insomnia, night-terrors; sunken eyes, muddy complexion, hysterical seizures, constipation, and so on.

Here is the picture of an individual about to enter on the duties of motherhood.

She conceives and passes through nine months of torture. She is almost a wreck and well-nigh unfit to bring forth a healthy child. At the time of parturition the perineum was ruptured and may or may not have been repaired. The circulation is sluggish, and subinvolution takes place, along with its general train of symptoms.

It is here the surgical gynecologist steps in, holding up his hands in horror, then pointing his finger at the general practician he shouts through our medical journals: "Bungling," "Malpractice," "Criminal." He says we should repair that perineum at

once; curet that uterus, shorten the round ligaments or do a ventral suspension; remove wholly or partially one or both ovaries—they are engorged and will become cystic. Perhaps he is conservative—says we will try and retain that uterus with an abominable thing called a pessary. If we fail, then she must submit to a laparotomy.

Thus things drag along, year in and year out; men in high places instructing the student and general practician along these lines, so that now abdominal scars are by no means rare even in these most secluded spots of this great Union.

Now, I am not a gray-haired veteran nor a pessimist, but think I have had my share of these cases since I have been in general practice and have been fairly successful with them.

Before beginning treatment let us consider a little of the anatomy of these organs and the causes which bring about these disturbances of function.

The uterus, a pear-shaped organ weighing about two ounces, is situated in the pelvic cavity and separated from the general abdominal cavity by the peritoneum. It is held in place by eight ligaments, namely:

The anterior ligament, composed of peritoneal and cellular tissue, connects it with the bladder. The posterior ligament, composed of peritioneal tissue, connects it with the rectum and posterior wall. The two broad ligaments, composed of peritoneal tissue and containing some nonstriated muscle, ovarian arteries, fallopian tubes, veins, nerves and lymphatics, connect it with either side of the pelvic wall. The two round ligaments, consisting of muscular tissue and arising on either side between the folds of the broad ligaments, pass down through the canal of Nuck and become lost in the labia. The sacrouterine ligaments, which arise from the supravaginal cervix, pass upward and backward and connect with the second and third bones of the sacrum.

Hence we see the uterus appears to have a fixed position. However it has no fixed position. Its position is modified by the condition of the structures and viscera which surround it. A full bladder crowds the uterus backward, a full rectum crowds it forward. A full sigmoid flexure, owing to its mesentary, may crowd it in any direction. This pressure is still further increased by the weight of the small intestines. The intraabdominal pressure is again modified by external pressure, as skirts, corsets, position of body, and so on.

The blood supply of the uterus comes from the aorta through the ovarian, and from the internal iliac through the uterine arteries. These arteries are of large size and tortuous. The veins are large and without valves and open into the internal iliac. Thus we can see also that the position of the uterus and the condition of surrounding structures modify the uterine blood supply.

Let us rehearse a little. About the time a girl enters her teens she begins to primp a little, and the corset must be worn to make that attractive gown more fitting and to strengthen that weak back. She is fond of attending pink teas, etc. Her food is nicknacks and delicacies. Her exercise, outside of making her toilet, consists of music and reading, with perhaps an occasional walk.

Thus the general system, in place of being normal, soon shows general complex changes. The liver is enlarged and congested, thus obstructing the return circulation of the pelvic viscera. Furthermore, these structures do not receive a proper blood supply to maintain a healthy condition. Once a month the pelvic organs become physiologically engorged, but this engorgment is increased to a pathological degree owing to back pressure in the circulation. The uterus becomes baggy and heavy; its supports begin to relax. The bowels are loaded with feces and toxins. The sigmoid with its load presses down upon this organ, further weakening its supports. Menstruation is perhaps profuse, painful or irregular, or all three. The usual nervous symptoms are all present.

Or perhaps the patient is a multipara, felt well for a time after parturition, present symptoms gradually developing. She did not feel as strong as after previous pregnancies.

If we examine her we shall find a torn perineum, a catarrhal condition of the vagina, uterus low down and enlarged but freely movable os, perhaps slightly lacerated and eroded. She seeks our advise. What are we to do? What are we going to do?

We examine the woman. Then tell her to take a douche every evening; give her a few tablets for the bowels, and tell her to come back later. Our treatment was given in a half-hearted manner, was carried out in a half-hearted manner, and the consequence is she does not return but seeks advice elsewhere, finally drifting into the hands of the pelvic surgeon.

If we will take hold of these patients with an iron hand and impress upon their minds that they are sick and need treatment, and that we are going to cure them, we have taken the first step in our treatment. Give something to relieve that engorged liver. Stir up those intestines, rid them of their toxins and fecal matter and make them do their duty every day. Then use wool tampons of glycerin, ichthyol and iodine; hot vaginal astringent douches, a "gallon or more," to be taken slowly and in the recumbent position. Clean out the uterus with an iodine or chloride-of-iron swab. If the uterus is much enlarged put the patient to bed and push the treatment. Keep the patient in bed the same length of time as a curetment and perineal operation would require, and you will obtain as good results as by surgical interference.

Wm. H. Willson.

Randall, Ia.

DYSMENORRHEA AND ITS TREATMENT

The study of the condition called dysmenorrhea appeals to many because of the intense suffering experienced, but in seeking relief we are prone to try at once some sedative or opiate and, like the patient, forget as soon as the pain stops that any underlying trouble exists. The term dysmenorrhea implies pain and is thus separated from menstruation with what we call the molimina, including general malaise, backache, pelvic congestion, neuralgia, etc.

The majority of cases coming to the general practician occur among young girls, generally those attending schools and living without physical work or exercise; they are anemic, often chlorotic, and dress as Dame Fashion directs. Our social life educates the young girls to confine the body in stays and bands, to remain up late at night, eat rich food, and above all to avoid any reference to or thought of sexual matters. All this occurs at the very time nature wants fresh air, exercise, and starts the ideas of love or sexual attraction, consequently inexorable nature imposes her just penalty in such physical effects as pain, aches, general nervousness, severe pelvic trouble and menstrual irregularities.

Anatomically we find the uterus anteflexed, small and hard, the muscle-fibers pale and an increased amount of fibrous tissue in proportion to muscle-fiber; the lining, or mucous membrane, is thin, pale and dry, while the normal should be thick and red, the muscle-fibers soft, and the entire uterine body should have a certain amount of motility, the blood-vessels being dilatable and tortuous.

Physiologically the uterus is in many ways similar to the mammary gland, depending for the control of function on the blood pressure and nerve-impulse. These are acted upon by similar agents, so that in its entirety the uterus may be regarded as a gland, discharging at periodic intervals an excretion, the product of gland-cells and blood by diapedesis, or tears about the swollen cervix. This excretion is changed by such agents as alter those of other glands; and carrying the similarity further, we can find that drugs which alter one act likewise on the other.

With this idea we may approach the treatment with some satisfaction, for we have found that the empiric treatment of dysmenorrhea has been faulty, to say the least.

It is wrong to give these patients some sedative or placebo, which is soon found to be of no value for then they are prone to pick up some patent medicine containing some obnoxious drug, generally an opiate

or alcohol, the continuance of which brings many sorrows.

Acting upon these ideas, a course of treatment was worked out which has proven of great value. The results seem fabulous but are true.

We know the nitrites are capable of dilating capillaries, of stimulating muscle-cells, and are sedative to nerve activity, especially sensory nerves.

The following plan of treatment in dysmenorrhea has been used by the writer in some 173 cases and results are most pleasing.

Glonoin was selected as the active agent and given during the week preceding menstruation. When menstruation starts, it is given in small doses every three to five hours, according to effect, but using the blood tension as the guide. Generally, during the first three or four months, a little morphine (gr. 1-16) was given to control pain, and but little of this is needed, for as soon as the flow is established and pain stops the drugs should be discontinued and during the three-weeks' interval attention given to whatever condition producing subnormal health is present. The blood should be examined and hemoglobin raised to normal. Exercise in the open air is most important, as also are the food supply and bowel conditions. The general hygienic conditions are most important, but after caring for these we find specific faults in the uterus and its appendages.

Increasing the amount of blood flow by dilating the capillaries allows the muscle-fibers to soften and the uterine body enlarges so that the nerves are not pressed upon, the mucous membrane with the glands excrete or pour out by diapedesis the menstrua, the cervix with pin-point opening is softened and the contained fluids may more easily escape so that clots are not formed by too long retention. The nitrites are distinctly sedative to sensory nerves and cord so that this valuable adjunct helps in preventing pain. Among these patients fainting and cold skin or extremities are common. Glonoin, daily, for these conditions is of use.

Menstruation appears to be a periodic discharge not only from the uterus but from the skin, at least there are increased body-odors at this time. We also find that the mammary glands often increase in size and to become sensitive, so that any agent which assists in these glandular actions would probably help the other more prominent one, for they are evidently acted upon at the same time and in the same way. Glonoin also has an influence upon trophic changes in the muscle-fibers of the body, and Wylie's pessaries were intended to increase muscular power by the constant efforts of the organ to expel a foreign body, so that any agent increasing muscular effort would help in this specific action.

In conclusion, the action of glonoin regulates blood pressure, quiets the sensory nerves, increases trophic changes in the muscle-fibers and stimulates glandular activity, so that it would appear to be the one drug which might be called a specific in the treatment and cure of dysmenorrhea.

Hugh Miller Moore

Oxford, Ohio.

HOW I TREAT TYPHOID FEVER

I clean out the intestinal tract and keep it clean with calomel and podophyllin, each 1-6 grain, every one-half hour for four to five doses, following in two hours with saline laxative. This course is repeated for two to three days, after which the saline laxative only as required during the fever. Quinine, 5 grains, is given every three hours for four to six days, or during the first week. Aconitine or the dosimetric trinity (aconitine, digitalin and strychnine) is used as occasion demands, or every one to two hours as long as fever continues.

After the first week I give guaiacol carbonate, 2 1-2 grains, with the combined sulphocarbolates every two and one-half hours throughout the fever. Before I became acquainted with the "intestinal antiseptic" I gave 2 grains of zinc sulphocarbolate at a dose. I also sometimes use: sulphurous acid, oz. 1; syrup of lemon, ozs. 3;

a teaspoonful in a glass of water every five hours.

About the tenth day a No. 2 capsule of oil of turpentine is ordered three times a day as long as there is tympanites or till the fever begins to give way, which will be about the eighteenth day. Four No. 1 capsules of quinine are ordered from 1 to 2 o'clock every night. This is all the quinine I give in the twenty-four hours after the first week.

If the fever runs high I have the patient sponged with cold water in which there is a piece of ice.

For nourishment: soups, buttermilk, barley water.

With this treatment I never look for complications."

W. A. Bates.

Purdon, Tex.

[Dr. Bates' treatment is certainly admirable and he finds it successful. It is suited to his locality. I doubt whether the quinine is required in other than malarial districts, but this is something our multitudinous readers ought to know for themselves. I wish Dr. Bates had told us how many cases he had and the result as to mortality, the length of time occupied by the attack and the presence of complications.—Ed.]

THE LETHAL DOSE OF MORPHINE

In a recent issue of Clinical Medicine someone said that the lethal dose of morphine cannot be definitely fixed. This is very true. I had a patient many years ago who was subject to the most agonizing attacks of intestinal colic I have ever witnessed. It was relief or death. I have administered to this patient, hypodermically, 4 and 5 grains of morphine before relieving him. Of course he would go wholly under its influence and I would stay with him for hours, arousing him occasionally, until I believed the danger was over.

Another patient, a married woman, was also subject to violent attacks of colic. I have given her as much as three grains of morphine without any serious effects except profound sleep for twenty-four hours; but in this case, too, when the pain was relieved, I made the husband arouse her every twenty minutes until there was no longer danger.

In a recent case of neuritis of the most severe type, affecting the sciatic nerve its entire length and extending into the foot, I gave by the mouth 6 grains of morphine, between 8 p. m. and 6 a. m., and it did not control the pain entirely; yet the patient suffered no bad effects.

I believe that when the patient is suffering severe pain, large doses of morphine can be given without great danger, although a great deal depends upon the constitution and nervous organism of the patient.

Recently I heard of a patient recovering from a debauch, to whom to quiet him four hypodermic injections of morphine, 1-4 grain each, were administered every twenty minutes, and when the patient became quiet he remained so for all time and woke up in Eternity!

We attribute this death to the ignorance of the attending "quack," who was not a graduate of medicine but is practising under a "permit." Have you any "permit" quacks in your country?

Jas. S. Baldwin.

Freeland, Md.

AMERICAN MISSIONARIES IN SYRIA

We have received from Miss Elizabeth Trowbridge an exceedingly interesting report of the medical work done by the American Mission at Aintab, a Syrian town about sixty miles from Aleppo, which, in substance, is here presented.

At this mission, from September 19, 1907, to June 15, 1908, 5538 patients were treated, including 13,580 surgical dressings, 15,400 treatments of eye, ear, nose and throat, more than 3000 examinations of blood, sputum, etc., and over 35,000 prescriptions filled. An average of more than 400 patients thronged the dispensary rooms daily. Five hundred and two surgical operations were performed, including 147 eye-cases, 29 laparotomies, 59 operations on bone, 41 on tumors, and so on. Ten surgical patients died—one each after gastroenterost-

omy, volvulus, perforation of stomach, resection of hip, cerebral abscess, empyema, prostatectomy, and tubercular abscess; and 2 (out of 8) gunshot wounds. The latter were the only cases recorded that seemed due to violence, and there were but five fractures. This is a remarkable showing, considering the clientele—Turks, Armenians, Greeks, Kurds, Syrians, Arabs, etc.

Patients waiting—Kurds and Armenians

The population of Syria, it should be remembered, is such a conglomeration as the world shows nowhere else. This country has been the battleground of the Old World from the earliest dawn of history. Two thousand years before Christ Sargon carried the arms of Agade beyond the shores of the Mediterranean and planted his standards in Cyprus. Following him, the rulers of the Euphrates valley contested the sovereignty of Asia with the lords of the Nile, and with successive swarms from the prolific north, whose irruptions of Hittites, Cimmerians, Amorites, etc., are dimly visible, or the clash of their arms is heard, through the mists of pre- and extra-historic periods. Now and again a deluge from the east overwhelmed the land with Elamites, Medes, Persians and Parthians. Philistines and Phenicians came from none knows where, settled the coasts and pushed inward with military or commercial colonies. From the sea arose the Greek, and under Alexander —in what here seems modern times—swept to the Indus. Rome succeeded the Seleucidæ, and at least three Roman Emperors kept the irrigation canals of Mesopotamia in order. Parthia and Rome contended for centuries, and the descendents of the warlike Hittites of David's day, the Armenians, formed the bulwark of Christianity, until the Saracen came up from the south and crumpled both Roman and Persian monarchies.

Still Syria formed the battleground between Mecca, Damascus and Bagdad, with irruptions of Kharismians, Turks and other wild tribes, while from Europe came the Crusaders, and Richard of the Lion Heart crossed his sword with that of Saladin. For a brief period the genius of a woman threatened to plant the world's capital in the Palmyrene sands. Still later the fury of the Corsican's attack was here first baffled by the steady valor of the Anglo-saxon, and during the last century Mehemet Ali led the forces of Egypt again into Syria, and but for Europe's veto would have re-established the rule of the Pharaohs throughout Asia Minor. All these and many an unrecorded wave of invasion have left their relics, the human flotsam and jetsam and ligan, along the shores of the Levant, to contribute their strains to its blood.

Group of waiting patients—Armenians

The soil of Syria teems with the relics of these and many another forgotten people. Strike with a spade anywhere you choose and you uncover the relics of a past that goes far beyond the date assigned to Adam's creation. The sites of great capitals have been forgotten, to mention only such as

Tigranocerta and Carchemish; while we are scarcely able to place in the records of history the stately ruins of Baalbec, or to account for Hamath, Kadesh, and other lofty piles. No man can tell when and who founded Damascus or Aleppo. The archeologic and literary treasures that lie buried beneath the soil of Syria are beyond the wildest imagination to conceive.

Syria for many thousands of years was the center of the world's thought and religious beliefs. Here met the cults of Jove and Zeus, Osiris and Isis, Jehovah and Moloch, Sin, Baal, Mardouk, Nebo, Nergal, Anu, Hea, Hormuzd and Ahriman, and many another long-forgotten deity. As faith in these waned the worship of Serapis Abraxas and Mithras replaced them for a time, until from the confusion emerged the noble figure of Jesus, and the world at last had a religion it could accept and live by.

To this ancient land Celto-Teutonic America, the youngest among nations, is now bringing the ultimate rich developments of a civilization that here had its inception thousands of years ago, here in the little hill-states of Judea. Truly, the "call of the East" is intelligible.

Dr. Shepard at work, with Armenian assistants

This mission at Aintab is an outpost of America in the worthiest form, namely, American medicine, and it has done more than all other elements of our nation to demonstrate our right to the leadership of civilization. In Cuba and Panama the much-disparaged American doctor has opened the way to the engineer, the trader, the planter, the manufacturer and the miner, and has made life there possible. Here in Syria is another of these medical outposts, a little group of devoted American men and women who are seeking to repay to Asia a portion of the debt we owe for the light she sent us two thousand years ago; and by so doing they are making the name of America

Corner of the women's ward and Miss Bewer, the nurse

known with honor, love and respect. The benefits they can confer on the people, and incidentally upon us, are limited only by the means at their disposal.

Dwelling upon this point, Miss Trowbridge tells us above all they stand in need at present of: (1.) Another American physician. (2.) A hot-water heater ($2000). (3.) A drainage system ($1000). (4.) A hot- and cold-water supply. (5.) Sterilizer for wards and operating room ($500). (6.) Dressing carriages for two wards ($76). (7.) Operating room and ward ($2000). (8.) Nurses' home and school ($4400). (9.) Endowment of $50,000 for more free beds. Miss Trowbridge and her staff ought to have all of these.

If each reader of these lines would influence the contribution from his wealthy friends the average sum of only two dollars, the sixty thousand would be raised at once. You may do so in full certainty that the money will go directly to its intended destination. This is no case of "the few remaining bricks," of lazy, greedy pretense,

of money diverted from its charitable object to the support of officials.

CLINICAL MEDICINE feels a personal interest in this matter, because among the brave women who faced the fury at Adana was one of our old staff, tried and proved by long and faithful service from the time the journal first made its appearance. Miss Emily Richter had been one of our most trusted aids for many years, when she felt the call of the suffering too strong to be resisted, laid down the keys of trust and went out to join the mission in Syria. Hence we *know* we speak truth when we say that every cent contributed to this cause will go straight to its proper destination and be utilized as the giver intends, and not squandered for other purposes. Should any reader desire to forward through us he may do so; but we see no reason why funds should not be sent directly to Miss Trowbridge, at Aintab.

We do not ask any physician to contribute to this cause—they do more charity than any other class, and far more than they can afford. But each of us knows some persons who have the means are are disposed to give where they know the money will be properly expended. Let such individuals know of this opportunity and urge them to contribute.

Will you do it?

Do it now! There is nothing that so warms the cockles of one's heart, fills the soul with happiness and withstands the assaults of melancholy, pessimism and old age, as the consciousness of having done a good turn for some fellow man, something in which we have no other interest or profit. It is worth while. And it is difficult to overestimate the encouragement to these brave and self-sacrificing men and women that will be thereby given.

"There's nothing finer 'neath the sun
Than brave, right living; duty done
At stroke of hour; kind thoughts bestowed;
A life to ease another's load;
Temptations overcome; some cause
Pushed forward; then a restful pause,
To give the new uprising good
In our own hearts, its little rood
In which to grow.

—MARION LISLE.

We have a peculiarly warm feeling for missionary physicians, of whatever creed, and this inspires our appeal.

EPILEPSY CURED BY THE "CLEAN-OUT"

The diagnosis of typical epilepsy is easy, and considering its frequency it would seem that a more satisfactory treatment might be devised. Most of the therapeutic advice given aims at regulating the cerebral circulation and this is, I believe, the desired end. I have noticed that alcoholism in ancestors is a strong predisposing factor, but I believe there are many cases that depend on faulty elimination, while many others are due to reflex irritation.

A man 35 years of age, single, of fine physique and good family history, was brought to my office by a neighbor after a severe attack of epilepsy, He had an average of three paroxysms a week, and as he had been treated for years, to no avail, he felt that further treatment was useless.

I took an hour to examine him thoroughly and I believe that at the end of that time I knew everything worth knowing about my patient. I coula find but one thing wrong —constipation. I put him on a saline laxative (effervescent magnesium sulphate), to be given every morning before breakfast, with the following results:

Two nights later the aura occurred, a dizzy sensation lasting probably five minutes; three nights later there was a slight sense of uneasiness after supper.

This was the last of the epilepsy. That was a year and a half ago. He has never had an attack since and feels and acts like a new man. The morning dose of saline is all the medicine he ever takes and he occasionally drops this for a week or more at a time.

B. S. ALLISON.

Delrichs, S. D.

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[Of course no one pretends that every case of epilepsy can be cured by a simple "clean out." Just the same we know that the importance of the toilet of the bowel is neither half appreciated nor half attended to.

When it receives the attention it deserves many an "incurable" disease will recover with the same marvelous rapidity which characterized this case of "epilepsy."—ED.]

"AUTO"-INTOXICATION: A DISEASE OF THE TWENTIETH CENTURY

Definition.—A form of insanity, of microbic origin, intermittent appearance, and sudden onset, which renders its victim a source of danger to the public.

Synonym.—Americanitis. This term is erroneously applied, since the disease is not confined to America, and is not in any sense an inflammation.

Etiology.—It is probable that the predisposing cause is to be found in a peculiar instability of the nervous system, which is often previously unsuspected, and is brought to light only upon exposure to the contagion of this disease. Certain it is that not all persons are susceptible to the influence of this poison. The causes of this immunity are deserving of further study.

The sole exciting cause, so far as at present known, consists in the inhalation, by a susceptible individual, of the microorganism known as the *auto*-coccus, while being propelled over the ground at a high rate of speed, in a vehicle operated by steam, electricity, or gasoline, and not guided by rails or overhead wires. No other means of propulsion has thus far been known to produce similar results.

Pathology and Morbid Anatomy.—The symptoms indicate the irritant effects of a toxin acting upon the brain-tissue. Microscopic investigation has shown that this toxin is developed by the action of the *auto*-coccus, a pathogenic germ which has a special affinity for the smaller cells of the neuron. The result is an intoxication, which affects both the mental and moral faculties in a highly characteristic manner. The action of this toxin is in some respects comparable to that of alcohol, which it resembles in that its effects, while seeming to be those of stimulation, are really the result of paralysis, more or less complete, of the governing and regulating faculties of the mind, leaving the individual at the mercy of his lower animal propensities.

Thus far, no constant anatomical changes, either gross or microscopical, have been discovered as constituting an essential feature of the disease.

Symptoms and Natural History.—The characteristic symptoms are two in number:

1. *Speed-craze, or a mad desire to "get there."*

2. *Reckless disregard of the rights of others.*

These symptoms are especially noticeable when, as is frequently the case, they occur in persons who have heretofore been habitually quiet, slow of motion, and regardful of the rights of others.

The disease comprises two stages, an active and a quiescent. The active stage, or acute attack, never occurs except when the subject is being whirled over the road at a high rate of speed under circumstances similar to those which have already been named in describing the exciting cause of the disease. At such times the patient becomes possessed of insane delusions of a most dangerous character, believing himself to be a king, czar, or other potentate of the first importance, while those individuals whom he may happen to meet, or pass, or come in contact with, in his mad career, are his subjects, vassals, or henchmen, and have no rights which he is bound to respect. Under these circumstances dangerous and even fatal accidents to by-standers and onlookers are extremely frequent, and occasionally the insane victims themselves are involved in the general overthrow.

When the violent stage has passed by, the subject becomes again, so far as can be judged by his appearance, sane, sober, and safe to associate with. This condition constitutes the second or quiescent stage of the disease, which continues until the next recurrence of the exciting cause.

It has been noticed in some cases that after the lapse of an indefinite and varying but considerable time the acute symptoms, as they periodically recur, become less marked and the individual less dangerous. This does not always occur, however; and

whether, in the cases in which it is seen, the symptoms will continue gradually to decrease until the disease wears itself out, is not as yet definitely known, as a sufficient length of time has not yet elapsed since the first case was reported, to determine this question.

Diagnosis.—The occurrence of the two cardinal symptoms, under the conditions which have been mentioned as constituting the exciting cause, makes a strictly characteristic picture, and renders the diagnosis easy. In this respect the disease resembles smallpox, measles, scarlet-fever, and the other contagious fevers, in which known exposure to the contagion of the disease constitutes an important element in the diagnosis.

Prognosis.—Always dangerous, often fatal —more often, however, to the innocent bystanders than to the insane individuals themselves. There are no rules by which the degree of danger can be predicted. The only safety lies in the entire avoidance of all public roads and highways.

Treatment.—The treatment thus far suggested may be comprised under four heads:

1. *Fines.*—These act under the well-known principle of elimination, and serve a useful purpose by relieving the serious congestion of the pocket-book which is almost always present in these cases, especially the more pronounced ones. They act, however, only as a symptom remedy, and their effects are usually but temporary.

2. *Imprisonment.*—This acts by removing the liability of exposure to the exciting cause. It is effective as long as the imprisonment is continued, but needs to be life-long in order to be properly effective. As this is not practicable under existing laws, this remedy must be classed with the previous one, as temporary only.

3. *Accidents.*—These are to be considered under two heads: (a) Those occurring to bystanders, as a result of speed-craze and reckless disregard of the rights of others on the part of the *auto*-intoxicated patients and (b) those occurring to the insane individuals themselves. In both cases, they are effective in proportion to their severity. Accidents to bystanders are apt to be followed by heavy fines, which, being paid by the maniac victims of the *auto*-coccus, act as before stated. Accidents to the patients themselves are effective in proportion to the severity, and the time for which they are disabled.

4. *Death*—usually as the result of accident. This also is to be considered under the two heads of bystanders and patients. Death of bystanders usually results from accident, and operates on the same principle as non-fatal accidents, with the exception that the resulting fines are sometimes even less, as it costs less to kill a man than it does to maim him to such an extent as to incapacitate him for earning his living. Death of the operator of these infernal machines is the only known sure and permanent cure. When an operator is dead, his power for evil is gone. So far as he is concerned, the highways are again habitable, and the public is safe. This remedy acts as an undoubted antitoxin, either antagonizing or destroying the poison of the *auto*-coccus. It is effective at any stage of the disease.

Prophylaxis.—Since this disease is the result of a microorganism, it has been suggested that it might be prevented by the destruction of the morbid germ. This it has been proposed to accomplish by the introduction of antagonistic germs. Just as the hope of ridding the country of the pestiferous brown-tail and gipsy moths, rests in the introduction of a parasite which shall prey upon and destroy these troublesome insects, or as certain diseases are known to be antagonistic, the one to the other, so it is hoped that a germ may be found, which, by its natural action, will either wholly destroy, or so largely inhibit the activity of the *auto*-coccus as to render it comparatively harmless.

It is believed by some that this much-to-be-desired agent will be found in the *aero*-coccus, or the germ which characterizes aerial navigation, and that thus the aeroplane will neutralize the ill effects of the automobile.

J. M. FRENCH.

Milford, Mass.

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[Thank God! Thus far we have escaped. But the germ seems to be everywhere and

it may "get" us next. No man can be sure of immunity.—Ed.]

THE POSTMORTEM FINDINGS UPON THE BODY OF A DOWIEITE

The greatest factor in the psychology of any individual is egotism. All questions are approached, judged and looked back upon with this one thought most prominent: How will it, does it affect, or how has it affected my welfare?

The most important thing to each individual is his well-being, and the most interesting philosophy, religion or belief is that one which has to do with our present or future welfare, bodily or spiritual, or both, according to the viewpoint of each person.

The most universal fact in human life is the state of ignorance that the great majority of the human family are born into, live in and die out of, and one of the most noticeable and uncomfortable results of this ignorance is the universal ill health of the human race. Hence, it is very natural that when religion had its budding time in the dim and misty ages agone the feature of remedying our most common discomfort found a prominent place.

The various mentoreligious healing cults today are but atavisms of our racial forerunnings and they give a good key to the analysis of the psychic individualities that constitute the different followings. Mrs. G. was born into a dunkard family, the father being a preacher of that denomination and a very religious man. She married and located with her husband in the same community where she had been reared and bore two children, a son and a daughter. When the son became a young man the family moved into the Pacific Northwest and there made their home. Soon after locating, the mother, son and daughter contracted measles. This occurred during the first months of the daughter's menstrual life, and as an after-effect of the measles her menstruation failed to appear and a temporary state of mental aberration occurred. Several physicians were consulted, but not being satisfied with a natural and physiological prognosis as formulated, the primitive element in the mental organization of the mother was caught up by the atavistic teaching of John Alexander Dowie, who at that time was rapidly climbing to the zenith of his influence, and away to Chicago hied mother and daughter.

In Dowie's sanitarium their credulity was cultivated, and incidentally the return of physiological function was nurtured. The daughter was kept in quiet, orderly surroundings, plain nutritious food was given, and once daily an elder came to her apartment and prayed fervently for her healing, asserting that at a certain hour each day Dowie himself prayed for her, and further assuring her that she soon would be healed; that a solid faith and a thorough belief were the only things necessary. Weeks passed, the daughter slowly improved, and then a trip into the country to her childhood home was deemed advisable—was sent there and continued to improve, regaining perfect health in the course of several months.

From this time forward both mother and daughter were firmly imbued with the truth of divine healing for physical ills. The spark of superstition handed down from the past had been fanned into a blaze, and no matron of old Gaul was ever more certain that Hisus [one of the three chief Celtic deities.—Ed.] influenced her daily affairs, than were these people that a god above had exercised his divine power in their behalf. No argument could alter this belief, no explanation of the power and working of suggestion was ever listened to by these women.

Now, the daughter was young, had regained health and remained healthy, consequently could easily be persuaded that a supreme power was keeping her well. But the mother was growing older fast; she had passed that age when repair is greater than decay. Under these circumstances this woman presented an interesting psychological study; for while vehemently affirming that she had no physical ailments, that the Lord was keeping her well, had no use for physicians or their medicines, she at the same time was not well, in fact was visibly

unwell and must certainly have suffered pain and great discomfort. During the year preceding her demise her ill health became so apparent that all who came in contact with her knew that something serious was the matter and that she was declining rapidly. Nevertheless she continued to read the literature of Zion, remaining firm in her belief in Dowie's teachings.

Upon January 17, 1909, her condition became so serious that the son, taking matters into his own hands, called in a physician, a friend of the family, to ascertain, if possible, by a friendly conversation, the nature of the illness.

At that time the most prominent objective symptoms were anemia, lemon-tinted skin, emaciation and great weakness, but also the changed mental attitude of the woman, inasmuch as she now admitted that she was "weak" and had not been well for some time. Her appetite was gone, she could eat nothing, and what she did attempt was vomited. These symptoms had been present in varying degrees for a year. Her menstrual function had ceased, but for about a year she had suffered hemorrhages from the uterus upon any undue exertion or sudden jarring. She would not submit to any extended physical examination nor was it urged. She said she had no pain. Advice as to articles of diet was accepted but all medicinal treatment refused. At this time she was still able to walk about the house, but two or three days later was confined to her bed, because delirious, and died one week after the physician's first visit.

Of course, no definite antemortem diagnosis could be given with the meagre examination allowed, although the symptoms pointed toward malignant disease of the stomach.

At postmortem examination the following conditions were found:

Stomach: Mucosa atrophied; no secretions had been formed for, probably, a long time; blood supply poor; the organ nothing more than a fibrous bag.

Liver: Atrophic cirrhosis; cut with resistance; friable; pale in color; of the consistency of a half-cooked liver.

Gall-bladder as white as marble; contracted; filled with gallstones and debris from decomposed gallstones, one large stone wedged tightly into the cystic duct.

Spleen: Cirrhotic.

Heart: Sclerosis of aortic valve and calcareous plaques in aorta.

Kidneys: Signs of a marked interstitial nephritis, the right kidney having the appearance of being almost devoid of function.

Uterus: Enlarged and a mass of fibroid tumors, submucous, intramural and subperitoneal. The largest was the size of a fist.

Every vital organ was involved in the sclerotic changes. The uterine and hepatic processes alone must have caused pain and other prominent symptoms at some time during their development, yet during all that time the victim proclaimed her full health, thanks to the kind surveillance of her God.

This case I believe fully represents a definite type of mind. Each individual during his development reproduces the various stages of our racial evolution. Many there are whose mental growth has carried along primitive strata and who, not cognizant of our present-day knowledge, bewildered as it were by our complex methods of understanding, revert to primitive concepts, living the ideas held by our progenitors of the long-ago when portents were read in the skies, the visitants of their dreams were departed tribal members, and the power to overcome in miraculous ways diseased conditions were virtues attributed to the celebrities of the age.

Such minds feel the lure of the fantastic and make up the mystic cults mentioned in the beginning. The instance here cited illustrates many of the socalled "cures" heralded by followers of those cults and clearly demonstrates the power of the mind to suppress symptoms, but its utter inability to check organic disease.

G. M. Hawkins.

Seattle, Wash.

YELLOW-FEVER AND THE CLEAN-UP SYSTEM

If Bouchard was the first apostle of intestinal antisepsis, he was not the first by

any means to practice his teachings, as the "clean-up and clean-out" system in certain infectious conditions has been practised unwittingly but successfully by the Mexican *curanderas* in all the zones where yellow-fever reigns.

A long time ago my attention was directed to the fact that these old women had such proverbial good luck in their treatment of yellow-fever, scoring two to one against the regular physician; and sometimes they would do even better, so much so that in and around Vera Cruz the idea prevails that physicians do not know how to cure yellow-fever.

Nothing is to me more ridiculous than to see one of these old cronies (now of both sexes) by the bedside of one of their patients. They will, with a very wise and serious demeanor, examine the patient's tongue, count the pulse-rate with the index-finger over the *cubitals* of the left wrist. (It must be the left as "the heart is on the left side," they'll explain sometimes; a fact that the regular physician is not aware of!) Sometimes they'll show off with a thermometer, putting this *under* the armpit—left also, but *over* the clothes, reading it off with a seriousness that puts the finishing touch on the ludicrousness of the scene. I have seen one put on his spectacles, call for a light, look at his thermometer, move his lips as if he were reading it, then shake his head and go near the kitchen fire in quest of more light, and at last satisfied of having deciphered it, return it to its case, and after pondering deeply and long inform the anxious bystanders that the patient is very, very bad with the dreaded *vomito*, of which the patient would surely die in the hands of the regular physician; and that they were very lucky indeed to have sent for him, and that God willing, he will pull him through.

Then someone informs *el Sr. Doctor* that the house is his and that he will be obeyed in all he may ordain

The first thing he will give—this is routine—is a dose of from 5 to 8 ounces (note the large amount) of castor oil with the juice of 5 or 6 lemons squeezed into it. Then a decoction of *palo mulato*—xanthoxylum clava Herculis [the prickly ash; though according to Maisch, palo mulato de Mexico is xanthoxylum pentanome, Ph. M.—Ed.]. Of the leaves of this tree he will sometimes make hot poultices and wrap the whole body in them. Lemon juice in the *palo mulato* decoction, and plenty of it, but no food whatever is ordered.

Recurrences, with the proverbial fatal ending, have occurred when this latter injunction was forgotten by the ravenous convalescent.

This is the whole treatment, and to the up-to-date physician who is observant and willing to learn the lesson is a plain one. Understanding the actions of each drug, he can improve upon the above treatment. He will substitute for the castor oil calomel and salines. I did not quite understand the use of the xanthoxylum, which is a known expectorant, until I also discovered a marked diuretic and antipyretic action; and right here is where the diuretic action of digitalin is plainly indicated.

As an intestinal antiseptic I have used carbolic acid, but I should think that the sulphocarbolates of calcium and sodium should prove as good if not better. I should not prescribe at first the sulphocarbolate of zinc, but might combine it with the first-named after convalescence had set in.

I never could do though without the great germ destroyer, calx sulphurata, in fact, I should be at a loss to be without it. It is my great standby and if it were the only thing in my case I should, with confidence, grapple with yellow-jack, calling to my aid such makeshifts as would come handy.

No matter what it is, yellow-fever, smallpox or what not, I do not think that any self-respecting germ will live in a neighborhood where calcium sulphide is opposed.

The next great standby is strychnine arsenate, which will hold my patient's head above the water; and I must have aconitine for the fever. I never give the dosimetric trinity though, as, according to the case, sometimes I push the aconitine, sometimes the strychnine.

From echinacea I have never received any marked benefit so, I have discontinued its use.

Should vomiting occur (which is a bad thing in more ways than one, chiefly on account of the patient turning against medicine, owing to the taste and smell of calcium sulphide) I use linseed poultices very thick and heavy, with the intention of preventing it. I also use a regular mouth wash of potassium chlorate, lemon juice, sugar and water, all boiled together. For very severe headache I use aqua sedativa, keeping the patient's head wet continually. [The *eau sedative de Raspail* is meant, containing ammonia water, 10 percent; spirit of camphor, drs. 1 1-2; sodium chloride, oz. 1; water, to make 1 pint.—Ed.]

The drinking water I have boiled, if possible filtered after being boiled, and a piece of charcoal put into it. Into all drinking water I put a little lemon juice, cutting the lemon up, rind and all. This also in same measure is a preventative to be recommended for its excellence.

It is a great error to attribute all cases of yellow-fever or paludal fever to the mosquitoes. The germs of both diseases live in the water and the fact that the destruction of the larvæ of mosquitoes diminishes yellow-fever and malaria is no proof at all of these diseases being distributed by the insect. It only proves that the same agent that will destroy the larva also destroys the more delicate germs. Of course the stegomyia will carry some yellow-fever about and distribute it, but most of it is carried in the drinking water, of which I have ample proof.

We now have had a cessation or rather a rest from yellow-fever for several years. Health authorities are congratulating themselves on their wisdom, attributing the cessation to their own wise provisions. Another great mistake.

The power of the Superior Board of Health reaches as far as the great cities and towns. In the hamlets and ranches people do not know what a board of health is, and should its provisions, or orders rather, reach there, they would be disobeyed entirely as there is nobody to enforce them. Right now while I am writing I am fighting mosquitoes —the real thing, too, and my sister has several small sores produced by them. Yet, in spite of the abundance of the stegomyia and the absence of all precautionary measures, the absence of yellow-fever is general and not restricted to a few cities and towns, where the health officers think they are scaring it off with petroleum cans and creolin bottles.

I have also seen too much yellow-fever in places where the stegomyia is noted for its absence.

But this is not an article on the causation and propagation of yellow-fever but on its treatment. It is not so intractable a disease as was believed; when the physician once is familiar with it—and of course, when he has been called in time. Three years ago I had eighteen cases one after another of which I did not lose a single patient with the treatment outlined above. Since then there has not been any yellow-fever, i. e., that *was* yellow-fever. Cases of mistaken diagnosis there were some.

I am sorry that I can not give quotations from my notebooks, which are put away in boxes in Cordoba, but in a very short time I expect to be able to do so.

In the meantime I hope to be wrong in my ratiocination and that the majority may be right, and that by fighting the mosquito yellow-fever may be a thing of the past.

A. R. Hollmann.

Xicaltepec, Ver., Mex.

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[I am sure that every reader of this interesting paper will hope that Dr. Hollmann will soon give us another chapter of his experiences. To the writer they are of intense interest. Come again, Brother.—Ed.]

SOME REPORTS ON CROTALIN

In the leading-article section of this number of Clinical Medicine we are printing a long article by Dr. Thomas J. Mays of Philadelphia, on rattlesnake venom, its mode of action and therapeutic uses. This is the continuation of an article on the same subject, published in *The Boston Medical and Surgical Journal* some months ago. At the time we referred to the subject editorially and suggested that our readers

should give the venom, or "crotalin," as Dr. Mays calls it, a careful trial in a number of cases. This a number of good men have done experimentally, some obtaining unfavorable or indifferent results, others being well pleased with its action, and nearly all making some suggestions concerning dosage. We print several letters herewith. They are failry representative of those received.

Tried It on Himself

I will give you the results of my use of crotalin to date. I commenced August 23, on 1-400 grain. Considerable pain for four to six hours, some soreness and a little swelling. Felt better and gained strength. On the 27th took 1-300 grain and did not feel so well. On the 31st took 1-300 grain and felt worse and lost flesh. I concluded the dose was too large and I was taking it too often. On September 7 I took 1-400 grain. Began to feel better again and gain in flesh and strength. Did not have as much local pain, but my arm swelled more than before, was inflamed and itched badly. Have taken the same dose on the 16th and 23rd. No pain from the last dose but arm swelled quite full. Am stronger, have less rattling in my lungs and have gained some in weight. Dr. V—— is giving it but has not examined my lungs since I commenced.

I believe my cough is better. Another month may give better results; 1-400 grain is dose enough to start with. I will report again in a month.

——, Texas. ———.

This is from a doctor, who is trying the crotalin in his own case. His report is therefore read with peculiar interest and we shall look forward to his further experiences, with sympathy as well as hopefulness. May things go well with him and complete restoration to health follow!—Ed.

Slight Change in Condition

I have had five patients under treatment, with crotalin, two in the first stage, three in the third stage. In two weeks I have not seen enough improvement to warrant reporting same, though all report "feeling better." Time only will tell.

E. W. Guilford.

Butler, Pa.

First Increased Cough, Then Relieved It

With regard to the action of crotalin, I will say that at first it seemed to increase the cough in two cases of tuberculosis in the second stage, but materially lessened it later. I have not used enough of it to speak definitely and will give it a further trial. I do not like to condemn or praise a remedy until I have had definite results.

C. A. Shepard.

Needles, Cal.

The Use of Venom in Tuberculosis

I am not yet in a position to give an opinion as to the value of crotalin, but I certainly do get a decided temporary relief following an injection, but so far have been unable to work out the action. The reaction following 1-200 grain is always very severe, too much so for continued use, therefore I have reduced the dose to 1-1000 grain, and while the reaction is less, I believe the results are just as good as with the larger dose.

I have been unable to find anything in the literature on immunity that gives any clue to the action of venom in tuberculosis. It has no action whatever on the associated organisms of mixed infection. I gave it a good trial in five cases, and later had to resort to autogenous vaccines in each case.

Cases of mixed infection (streptococcic, staphylococcic and pneumococcic) did just as well on the straight vaccine, as with vaccine plus venom. Yet I must acknowledge that the venom has a stimulating action on such patients, an action which so far as I can see is only of short duration (three to four days). I shall continue its use for a time.

G. R. Pogue.

Greeley, Colo.

Marked Improvement from Crotalin

I have now given my consumption patient (a man, 40 years old) four injections of crotalin and a marked change for the better can be seen in him. He is stronger, sleeps all night without coughing; there is very marked increase of hunger; expectoration is lessened in quantity, losing the heavy dense yellow appearance and becoming more frothy. He says he is going to get well. Before the treatment began he was using whisky, one to two quarts per day, I advised him to let up on that and he now hardly touches it, and some days not at all. While living in Dakota, about six years ago, he was bitten on the right thumb by a rattlesnake and he at once applied his lips to the wound and sucked the poison out; the wound caused very little swelling and inconvenience. When I have given him four more treatments I will report again.

D. E. Ruff, M. D.

Junction City, Oreg.

The reports seem to indicate that a rather severe reaction sometimes follows the use of crotalin in the doses advised. It seems a better plan to commence with small doses, gradually increasing if necessary. In Dr. Mays' article and the editorial in this issue there is more information concerning the mode of action of this remedy.

Used in Tabes and Tuberculosis

I have used crotalin in two cases, one of tabes and one of pulmonary tuberculosis. I started with 1-100-grain dose hypodermically, twice each week, and increased to 1-100 grain at which point I had to discontinue for a time, as the local reaction was too great. I believe the dose should be decreased as soon as any local reaction occurs and 1-200 grain will be found all that a weakened patient will stand. In the case of tabes the pains disappeared and walking rapidly improved. Now, after two months from beginning of treatment, the pains are beginning to return, but the general condition and walking remain much improved. The patient is a female and refuses more injections. I have been giving 1-200 grain twice a week *by the mouth*, but can not see that I get any results. This

patient was put on chromium sulphate, 40 grains daily.

My case of tuberculosis had a temperature running to 100° to 101.6° F. most of the time. The glands of the neck were also involved. I put him on glycerophosphates and applied guaiacol to the glands; cleaned out the crypts of the massive tonsils with phenol on probes and started with 1-200 grain crotalin hypodermically. The patient has gained strength, from six to eight pounds in weight and the temperature is dropping steadily; September 23, 1909, it was 99 °F. in five weeks' treating. Had the same trouble with local irritation on running the dose up to 1-100 grain; 1-150 grain was all that this patient could take care of. I have been well pleased with results, but would suggest the 1-200 grain dose two or three times each week until it fails to do the work. Only then should it be increased. I shall continue to use this preparation.

J. A. S. Howell.

Elgin, Ill.

These letters are none of them conclusive, and yet all of them are sufficiently encouraging to warrant further experimentation along this line. That benefit followed the use of crotalin in many cases is apparent; the permanency of this benefit is problematical. We shall ask the doctors sending in these reports to tell us the later histories, and we hope that other members of the "family" will try and report.

It is a striking fact that nearly every one considered the dosage too large, and urged that, at least when beginning treatment, the quantity given should not be large enough to cause a violent local reaction. This sounds like good common sense.

Any remedy that promises benefit on the treatment of the "great white plague" deserves careful trial. You cannot afford to overlook crotalin. So—try and report.

FALLING OF THE ABDOMINAL VISCERA

To the average practician much abdominal diagnosis looms up daily. In this obscurity he looks for cases of ptosis, and many a good physician realizes well the difficulty and supreme importance of knowing just where the several organs are, while he finds equal difficulty in gaining the advantages which much modern resources offer in expensive and complicated apparatus and tests. Much clinical instruction fails to reach the individual student. But no man cares to have his cases pass on to another man who discovers some organic reason for what appeared disorder of function, or mystery, hysteria, neurasthenia simplex, hypochondria or epilepsy.

A. Mathieu of the Hospital Saint Antoine (*Journal des Praticiens*, Dec. 7, 1907), in the clearest manner goes over the two essential conditions of abdominal interest, namely, intraabdominal tension and visceral ptoses. From these are derived several types of illness.

To determine the state of abdominal tension, have the patient upon his back, and let him contract the muscles as if to assume a sitting posture. An epigastric depression is indicative of lowered tension. There is a rounding out of the subumbilical region. The cushion of fat may swim loosely upon the deeper structures. This last sign is often the cause of error in diagnosis, for it has nothing to do with the state of tension.

Ptosis of the kidney, or simply its pathologic movability, according to Mathieu, will be present in 50 percent of cases of neurasthenia and indigestion of women. We find slight dyspeptic symptoms alternating with diarrhea and constipation, a sensation of weight or fulness after meals, even painful attacks of cramp-like character, mucous colitis, and spasm of the colon accompanying the cramp. These patients give us the history of nervous depression, fatiguing on slight exertion, so that the morning finds them tired out. Insomnia and headache, these two ogres eat up their peace of mind. The patient often becomes very thin.

Glenard finds in a number of patients, whom he classifies with the above, entire absence of physical signs. Stiller holds physical signs should exist. When the tenth rib is loosely attached to the ninth rib, it is a most valuable sign of the tendency to ptosis and the train of dyspeptic and neurasthenic illness.

Mathieu does not incline to the views of either Stiller or Glenard. He finds a special category of cases of general relaxation of tissue. Patients of this class are predisposed to dilation of the stomach. Bouchard says that these patients are nearly all suffering from diminished acidity of the stomach

Gastric fermentations ensue and are prone to interfere with intestinal activities. Auto-intoxication results. Movable kidney occurs about once in twenty-five cases among men. Occurring around the age of 25 or 30, the subject has the appearance of jaundice, or cholemia. He tires easily. Transitory indigestion is complained of, and an obstinate constipation. Such a person finds it difficult or impossible to pursue his studies in college or to follow his regular occupation. The tragic consequences of such a state must appeal to us.

T. H. Evans.

Freeport, N. Y.

BOILS OF CHILDHOOD

Boils are often very hard to cure in young children. One of the best methods of treatment is to give a hot bath and then wrap the child in hot blankets, with warm drinks and a small dose of acetanilid to produce perspiration. Another bath—this time in sublimate solution, 1 : 10,000—is followed by incision of all the furuncles. The body is then dried and dusted with xeroform. The treatment is to be repeated every second day.

ESPERANTO FOR PHYSICIANS

Pronouns

The *personal pronouns* are: *mi*, I; *ci*, thou (rarely used, and only under the same conditions as in English); *li*, he; *ŝi*, she; *ĝi*, it (used not only of inanimate things, but also of children and animals when the sex is unknown or is immaterial); *oni*, "they," "one," people (the French *on*, the German *man*); *ni*, we; *vi*, you (both singular and plural, the adjective, if any, agreeing with the subject in number); *ili*, they (the same plural form sufficing for all forms of the third person singular.)

The *reflexive pronoun* is *si*, oneself, himself, herself, themselves.

Pronouns form the accusative by adding *n*.

Possessive pronouns, being practically adjectives, take the adjectival termination *a*, and add thereto *j* for the plural, and *n* for the accusative singular or plural. Thus: *mia*, *mian*, *miaj*, *miajn*, etc., and so on throughout.

(*Note.*—It may be well here to explain a point of syntax which applies to all adjectival forms; not only to adjectives proper, but also to adjectival (i. e., possessive) pronouns, ordinal numbers, and the adjectival form of participles. An adjective is said to be "attributive" when it *assumes* the existence of the attributed quality in the subject; it is said to be "predicative" when it *asserts* it.

Now, an "attributive" adjective agrees with its subject *both in case and number*, whereas a "predicative" adjective *agrees only in number* but is always in the nominative case.

Thus: "The surgeon found the diseased bone," *la ĥirurgiisto trovis la malsanan oston;* i. e., he was looking, not simply for bone, but for diseased bone, and found it. But: "The surgeon found the bone diseased," i. e., he was looking, not for what was known to be diseased bone, but for the condition of the bone, whatever it might be, and found it (to be) diseased. In the first case the adjective is attributive. In the second it is predicative; the condition of disease is asserted of the bone and the adjective, therefore, does not agree in case with bone, but remains in the nominative—*la ĥirurgiisto trovis la oston* (*esti*) *malsana.*

In some cases this distinction is of great importance, serving to render clear statements that in English are apt to be ambiguous. Thus: "He named his son, "John." Here, it is meant that he mentioned that one of his sons who is named John, a fact assumed. But, "He named his son John" means that he gave to his son the name of John. Here the name is part of the predicate—that which is being asserted —not a mere attribute. In English there is no difference of form, save the comma, and a mistake is likely to occur. But in Esperanto the form renders the distinction clear. The attributive form would be rendered, *Li nomis sian filon, Johanon*, the accusative being one of attribution or qualification; but the predicative form would be, *Li nomis sian filon Johano*, the nominative showing an assertion.)

Besides the before-mentioned pronouns there are five other classes, which, however, because of their intimate relation with other classes of words, it is convenient to consider together with them, under the heading

Correlative Words

Of these there are in Esperanto 45, which include the classes of pronouns known generally as (1) indefinite; (2) demonstrative; (3) relative and interrogative; (4) collective, distributive, or universal; (5) negative.

These words have been grouped together by Dr. Zamenhof on a most ingenious and methodical plan, which (while somewhat arbitrary and *a priori*, and therefore obnoxious to a few Esperantists who insist on a complete adhesion to the *a posteriori* idea throughout) are so convenient that there is little likelihood that they will ever be discarded.

The words are grouped by their initial letters into five groups as follows:

1. Indefinite, or "I" words: e. g., *iu*, anyone, someone; *ie*, anywhere, somewhere.

2. Demonstrative, or "T" words: e. g., *tio*, that; *tiel*, thus, so.

3. Relative and interrogative, or "K" words: e. g., *kiu*, which, who; *kial*, why, wherefore.

4. Collective, distributive, and universal, or "*Ĉi*" words: e. g., *ĉio*, everything; *ĉiu*, each; *ĉiam*, always; *ĉiom*, how much.

5. Negative, or "*Nen-*" words (*ne-*, plus *n* for euphony); *neniu*, nobody; *neniel*, by no means.

Each word of these series, by adding an appropriate terminal, can be made to signify the phases of indefiniteness, relativeness, etc., in regard to the ideas of thing, quality, place, reason, manner, time, quantity, of individuality of person or thing, or possession.

Thus, starting with the letter I, to represent the indefinite idea of "some," "any," we get by adding the terminal—

o (substantival), indefiniteness in relation to "thing;" e. g., *io*, something, anything.

a (adjectival), indefiniteness of quality or kind; e. g., *ia*, some (or any) kind of, some, any.

e (adverbial), indefiniteness of place, e. g., *ie*, somewhere, anywhere.

al (adverbial), indefiniteness of reason, purpose, motive; e. g., *ial*, for some (or any) reason.

el (adverbial), indefiniteness of manner; e. g., *iel*, in some (or any) way, somehow, anyhow.

am (adverbial), indefiniteness of time; e. g., *iam*, sometime, any time.

om (adverbial), indefiniteness of quantity; *iom*, some (or any) amount, somewhat.

u (pronomial), indefiniteness as to persons or things; e. g., *iu*, someone, anyone.

es (pronominal), indefiniteness as to possession; e. g., *ies*, someone's, anyone's.

By prefixing to the indefinite I one of the following letters, we produce a corresponding series of words representing respectively:

T, definiteness or demonstrativeness; e. g., *tio*, that thing; *tia*, of that kind, such; *tie*, at that place, there; *tial*, for that or such a reason, therefore; *tiel*, in that way, thus, so; *tiam*, at that time, then; *tiom*, that much, so much; *tiu*, that person or thing (referred to); *ties*, that person's, someone's.

K, relativeness or interrogation; e. g., *kio*, what, which thing; *kia* of what or which kind; *kie*, where; *kial*, why, wherefore; *kiel*, in what manner, how, as; *kiam*, at what time, when; *kiom*, what quantity, how much; *kiu*, which person or thing (referred to), who which; *kies*, whose.

Ĉi, universality, distributiveness, collectiveness; e. g., *ĉio*, everything; *ĉia*, of every kind; *ĉie*, everywhere; *ĉial*, for all reasons; *ĉiel*, in every way; *ĉiam*, always; *ĉiom*, the whole of; *ĉiu*, each, every person, all; *ĉies*, everyone's.

Nen, negation (*ne-*, negative, plus *n* for euphony); e. g., *nenio*, nothing; *nenia*, no kind of; *nenie*, nowhere; *nenial*, for no reason; *neniel*, in no way; *neniam*, never; *neniom*, no amount of; *neniu*, no person or thing; *nenies*, no-one's.

All the foregoing words that end in a vowel can take the accusatival *n*, and those ending in *a* or *u*, being susceptible of the plural idea, take also the plural ending *j*, when required.

The accompanying table should be carefully studied, the student following the words and their significations first vertically, then horizontally.

[Table omitted for lack of space. A copy sent free to any one desiring it.—Ed.]

This is the only thing in Esperanto that really requires any special application. When mastered, it not only puts the learner in possession of these important and constantly used words, but also enables a large number of words to be created at will, by affixing to these (as roots) the grammatical terminations and other suffixes. In English it is very common, but grammatically wrong, to speak, for instance, of "the then president." In English "then" is an adverb, and can rightly qualify only verbal ideas, not substantival ones. We should say, "the president of that time." But in Esperanto, where everything is good Esperanto that is obvious in meaning and follows the rules of word construction, *tiam*, then, can be rightly made an adjective by adding *a*—*la tiama prezidanto*. In like manner a "never-waser," and other freak or slang words in English can be fairly rendered by perfectly good Esperanto forms, e. g., *neniam-ul-o*, a person of never. Other examples are: *ĉie-ul-o*, a man of everywhere, a cosmopolitan; *la kial-o de io*, the why and the wherefore of anything; *la vivo ĉiama*, the life everlasting; *neni-ig-i*, to make nothing of, to annihilate.

There are two enclitic particles, *ĉi*, and *ajn*. Ĉi is used with *tio tiu*, and *tie*, signifying proximity. *Tio*, that; *tio-ĉi* (or *ĉi-tio*), this. *Tiu*, that person; *tiu-ĉi* (or *ĉi-tiu*) this person. *Tie*, there, tie-ĉi (or *ĉi-tie*) here. *Tie*, alone or with *ĉi*, also takes the accusative *n*, when motion toward, physical or metaphorical, is implied. *Iru tien*, go there; *venu tien-ĉi*, come here.

With the interrogative and relative, or K series, the enclitic, *ajn*, ever, is used; thus *kia ajn*, of whatever kind; *kien ajn li iros*, wherever he shall go; *kiom ajn mi prenas*, however much I take, etc. *Ajn* is also used with the I series by some writers; and rightly so, for the rule in Esperanto is that *any word can be combined with any other if the sense admits of it.*

EXERCISE VII

Mi ordinacios (1) *kaj vi operacios* (2) *tiun malsanulon.—Li estas farmaciisto* (3) *kaj lia fratino estas malsanulistino,* (4) *kiu flegas* (5) *la malsanulojn ĉe* (6) *la malsanulejo.* (7) *Ŝi estas sperta* (8) *je* (9) *ŝia okupado.* (10)—*Kie estas mia segilo* (11)*? Ĝi kuŝas* (12) *sur la operacia* (13) *tablo—Ni estas regulaj* (14) *kuracistoj, vi estas homeopatiaj, kaj ili estas eklektikaj* (15) (*kuracistoj*).—*La operaciisto* (16) *devas* (17) *gardi* (18) *sin kontraŭ* (19) *sangveneniĝo.* (20)—*Sanaj ostoj estas duraj;* (21) *oni ne facile* (22) *rompas* (23) *ilin.—Jen estas* (24) *via ilarujo!* 25—*Ŝi alvokis* (26) *la kuracistinon, kiu, tamen,* (27) *ne povis* (28) *veni; tial ŝiaj parencoj* (29) *alvokis sian* (30) *kuraciston; tiu-ci tuj* (31) *venis. Li donis al ŝi iom da* (32) *medikamento, kaj ŝi rapide resaniĝis.* (33)—"*Kiu estas tie?*" *diris la ĉef-kuracisto.* (34) "*Malsanulino,*" *respondis* (35) *la nove veninto* (36). "*El kie vi venas?*" *demandis* (37) *la kuracisto.* "*El la malsanulejo*" *ŝi respondis.* "*Kial do* (38) *vi ne restis* (39) *tie?*" "*Car* (40) *oni ne permesos* (41) *ke mi parolu kun* (42) *vi, kaj mi deziras plendi* (43) *pri io.*" "*Pri* (44) *kio vi deziras plendi?*" "*Pri la manĝaĵoj,* (45) *kiujn oni donas al mi.*" "*Kia estas via plendo?*" "*Pri la kvanto* (46) *kaj la kvalito* (47). *Oni donas al mi nur iometon* (48), *kaj tiu ne estas bongusta* (49)*; tio estas tre malbona.*" "*Kiom da manĝadoj* (50) *oni donas al vi ĉiutage* (51)*?*" *Tri manĝadojn.*" "*Kiom da pli multe* (52) *vi deziras?*" "*Mi deziras manĝi kiam ajn mi estos malsata* (53)." "*Oni povas nenial permesi tion, ĉar ĝi estus malbone por vi.*" "*Ĉu vi neniam permesas al malsanuloj ke ili manĝu kion ajn, kiam ajn, kaj kiom ajn ili volas?*" "*Tute ne* (54). *Tiu estas ridinda* (55) *ideo* (56)." "*Tila mi deziras ne plue* (57) *resti ĉe la malsanulejo.*" "*Sed kiel vi atendas* (58) *resaniĝi?*" "*Mi ne scias* (59). *Estas indiferente* (60). *Sed mi ĉiam estas havinta* (61) *ĉiom, kiom mi deziris, kaj mi ne volas akcepti* (62) *ion alian* (63)." "*Vi estas tre sensenca* (64) *malsanulino. Mi prenos* (65) *surmin* (66) *nenian pluan respondecon* (67) *pri vi. Mi sentas* (68) *neniom da saimpatio* (69) *por vi, ĉar vi estas pli malsaĝa* (70) *ol*

(71) *iu kiun mi iam* (72) *renkontis. Kies afero* (73) *estas, resanigi* (74) *vin? Ĉu* (75) *ne mia? Vi estas tiel semprudenta* (76) *kiel infano. Ĉial* (77) *vi foriros* (78) *el mia fleagdo* (79). *Mi esperas ke vi ne suferos* (80) *pro* (81) *tio-ĉi, kien ajn* (82) *vi iros, sed nenie vi trovos pli bonan flegejon* (83) *ol tiu ci."—Tiel diris la tiama kuracisto de la restejo* (84), *ĉar li estis lacigita* (85) *per la ĉiama* (86) *plendo de tiu-ĉi malsanulino. Oni ne povas ĉiame* (87) *aŭskulti* (88) *nenion ekster* (89) *plendoj.—Ĉu ne ies pacienco* (90) *estus neniigita per tiaj sensencaj plendoj?*

NOTES

1. *Ordinacii*, to prescribe.—2. *Operacci*, to operate on (surgically).—3. *Farmaci-ist-o.* —4. *Mal-san-ul-ist-in-o.*—5. *Flegi*, to care for (a patient).—6. *Ĉu*, at (French, *chez*).—7. *Mal-san-ul-ej-o.*—8. *Sperta*, skilled.—9. *Je*, an indifferent preposition, indicating various kinds of relation to, "in regard to." —10. *Okupado*, occupation, that which one usually does. *Okupo* would signify rather that which one is doing at any particular moment.—11. *Seg-il-o*, saw; *segi*, to saw.—12. *Kuŝi*, to lie.—13. *Operacio*, operation. —14. *Regula*, regular.—15. *Eklektika*, eclectic.—16. *Operaci-ist-op*, a regular operator; *operacianto*, would mean the person now operating.—17. *Devi*, to have to, must.—18. *Gardi*, guard.—19. *Kontraŭ*, against.—20. *Sango*, blood; *veneno*, poison; *iĝi*, to become —blood-poisoning.—21. *Dura*, hard.—22. *Facild*, easy.—23. *Rompi*, to break.—24. *Jen estas*, here is.—25. *Ilo*, an instrument; *aro*, a collection; *ujo*, a container; instrument case.—26. *Alvoki*, to summon.—27. *Tamen*, however.—28. *Povi*, to be able.—29. *Parenco*, relative.—30. *Sian*, their own.—31. *Tuj*, at once.—32. *Iom da.* Note this construction. "Of," following partitive adjectives and numerals is *da*, not *de*, which represents agency or possession.—33. *Re-san-iĝ-i*, to cause oneself to be well again (*re*); to "get well."—34. *Ĉef-*,head-.—35. *Respondi*, to answer.—36. *Nove veninto*, newly having come. The "new" in "new-comer" qualifies the act of coming, not the person, and is therefore an adverb—*nove*, not *nova*.—37. *Demandi*, to ask.—38. *Do*, then (enclitic). —39. *Resti*, to remain.—40. *Ĉar*, because.—41. *Permesi*, to permit.—42. *Kun*, with.—43. *Plendi*, to complain.—44 *Pri*, about.—45. *Manĝi*, to eat; *manĝ-aĵ-oj*, things to eat, food.—46. *Kvanto*, quantity. (One could also say the *kiomo*, "how-muchness," or *tiomo*, "so-muchness," and it would be perfectly understandable.)—47. *Kvalito*, quality. Here again one could use the suffix *ec-o.*—48. *Iom-et-o-n*, a very little some, a trifle.—49. *Bon-gusta*, good tasting.—50. *Manĝ-ad-oj*, acts of eating, meals.—51. *Ĉiu-*every, *tago*, a day, daily.—52. *Kiom da pli multe;* note again, how much of more?—53. *Sata*, satiated, malsata, hungry.—54. *Tute ne*, entirely no, certainly not.—55. *Ridi*, to laugh. *Rid-ind-a*, worthy of being laughed at, ridiculous.—56. *Ideo*, idea.—57. *Plue*, further.—58. *Atendi*, to expect.—59 *Scii*, to know.—60. *Estas indiferente*, it is no matter. Note the adverbial form, there being nothing for the participle to agree with. —61. *Estas havinta*, am having had, i. e., have had.—62. *Akcepti*, to accept. 63. *Alia*, other.—64. *Senco*, sense; *sen-senca*, senseless. —65. *Preni*, to take.—66. *Sur min;* accusative because the action of taking to oneself implies metaphorical motion.—67. *Respond-ec-o*, the quality of answering, responsibility. —68. *Senti*, to feel.—69. *Simpatio*, sympathy.—70. *Saĝa*, wise; *mal-saĝa.*—71. *Pli . . . . ol*, more than.—72. *Iam*, ever. Note that in English, "ever" is sometimes universal, "always," sometimes indefinite, "at any time." The sense, not the word, must always be translated in Esperanto.—73. *Afero*, business.—74. *Resan-ig-i*, to make well, to treat, cure: note difference between *igi* and *iĝi.*—75. *Ĉu*, asks a question. "Is it not mine?"—76. *Sen-prudenta*, imprudent.—77. *Ĉial*, on all accounts, "by all means."—78. *For-* away, *iri*, to go.—79. *Fleg-ad-o*, from *flegi*, to care for as a patient. —80. *Suferi*, to suffer.—81. *Pro*, on account of.—82. *Kien ajn*, wherever; note the accusative of direction.—83. *Fleg-ej-o-n*, place for nursing, infirmary.—84. *Rest-ej-o*, place of rest, sanitarium.—85. *Laca*, tired. *Lac-ig-it-a*, having been made tired, wearied.—86. *Ĉiama*, everlasting.—87. *Ĉiame*, perpetually. —88. *Aŭskulti*, listen to.—89. *Ekster*, outside of, except.—90. *Pacienco*, patience.

CLINICAL · MEDICINE
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PART III—LESSON THREE

TYPHOID FEVER (Continued)

SPECIAL SYMPTOMS AND COMPLICATIONS

During the first and second week of typhoid fever many patients complain of severe headache and are often delirious and very restless, which symptoms are almost always an indication of imperfect intestinal antisepsis, or of bad nursing, unwholesome visitors, improper food, etc. These nervous conditions can be greatly relieved by zinc or caffeine valerianate, 1-6 grain every hour. The headache often is controlled by codeine, gr. 1-2 or gr. 1-8 hypodermically, or morphine. From 10 to 15 grains of trional or small doses of phenacetin (grs. 3 to 5) have been used for the same purpose with good results. The delirium can usually be controlled by hyoscine hydrobromide, given in 1-100 grain doses; this failing, morphine must be resorted to.

If the restlessness and delirium be particularly obstinate morphine should be given; it can do no harm and serves to protect the brain from exhaustion.

In drunkards it may be necessary to administer a little alcohol, although morphine, hyoscine and, especially where there is extreme motor restlessness, cicutine hydrobromide, 0.004 to 0.006 Gram every two hours, will act with great efficiency. In mental derangement accompanied by restlessness and great muscular activity no remedy is equal to cicutine hydrobromide. Apomorphine in small doses has also been highly recommended in cases of acute mania.

The Depressive Conditions—coma, sopor, stupor—may be helped by giving the following mixture in an enema, in two or three portions: Cognac brandy, 20 parts; ethereal tincture of valerian, 5 parts; yolk of egg, 1; mucilage of acacia, 20 parts; water, sufficient to make 150 parts.

While the remedies above mentioned will serve a useful purpose, I believe that the nervous symptoms of typhoid fever yield best to proper hydrotherapeutic methods. Prof. Juettner will give full details of the hydriatic treatment of typhoid complications. In some cases, however, it may be necessary to resort to one or more of the remedies mentioned above, even though proper hydrotherapeutic measures are being adopted.

Digestive Organs.—The care of the mouth and the nasopharyngeal cavity has already been considered. Should the typhoid patient have artificial teeth they should

be removed from the mouth throughout the entire febrile period. If thrush appears it should be treated vigorously.

Constipation is best treated by enemata of soapsuds, oil or glycerin. Small doses of calomel and saline laxatives may be employed during the first days of the attack if necessary.

Diarrhea is often a source of especial anxiety although no medical treatment need be instituted unless the stools are very frequent and attended with undue peristaltic action, colicky pain and tenesmus, proper regulation of diet, hydrotherapy, ice-bag to the abdomen, tepid affusions, etc., usually sufficing to overcome the difficulty. If the stools exceed in number five or six a day and the diarrhea cannot be checked by dietetic and hydriatic measures resort may be had to bismuth subnitrate or the subgallate, opium or the lead and opium pill. In the majority of instances, however, diarrhea will not occur under thorough intestinal antisepsis with the sulphocarbolates, but should this condition become troublesome despite the antiseptic treatment, it may be necessary to flush the colon twice a day with a warm salt solution, and zinc sulphocarbolate with codeine given in full doses. The offensive odor of the stools can be overcome by irrigation and thorough intestinal antisepsis by means of the sulphocarbolates.

Tympanites will rarely occur if the dietary has been proper and thorough intestinal antisepsis was effected from the beginning of the attack. If meteorism occurs under the foregoing conditions it indicates profound intoxication. Hydrotherapy here is of the utmost value; gradually cooled full baths, and in the intervals moist affusions or an ice-bag or turpentine stupes will do much toward relieving this troublesome complication. If milk is being given it should be replaced by broths and egg-albumen. Oil of turpentine has long been employed for the relief of tympanites and it is doubtless of much value in many cases. It may be given in 5- or 10-drop doses in a capsule or in egg emulsion or dropped on a lump of sugar. The oil may also be incorporated with a mixture of asafetida and water given as an enema.

If the meteorism is limited principally to the large intestine much relief can be obtained by the introduction of the rectal tube; if however the gas is confined principally to the small intestine but little can be accomplished with the tube.

Intestinal Hemorrhage demands absolute quiet and rest in the dorsal decubitus; the stomach and the entire alimentary tract should be quiet, no food whatever being allowed for some hours. At most, bits of ice or cold tea in spoonful doses may be given. If the hemorrhage is slight, or on the cessation of more copious hemorrhage, a spoonful of cold milk or a corresponding amount of mucilaginous soup may be given every two or three hours. In extreme cases the foot of the bed must be raised and a Leiter coil placed or other cold application be made to the ileocecal region and kept there constantly.

Oil of turpentine should be begun whenever there is a trace of blood in the stools or sloughs appear in them. Sudden and dangerous bleeding is probably best controlled by the hypodermic injection of 1-67 grain of atropine; this markedly dilates the cutaneous blood-vessels, keeping the blood in the skin and lessening the hemorrhage from the bowels. Peristalsis can be controlled by full doses of morphine either by the mouth or rectum. Lead and opium pill is also of value.

Large doses of calcium chloride (2 grains every three or four hours) or a combination of calcium lactate and calcium chloride and the subcutaneous injection of a 2-percent solution of gelatin increase the coagulability of the blood and favor thrombosis. Gelatin may also be given by the rectum, 15 Grams dissolved in 150 Cc. of hot water three times a day. Transfusion of a 0.7-percent saline solution into a vein or the subcutaneous tissue may assist in tiding the patient over.

As a rule stimulants should not be given in hemorrhage of any kind. Moderate collapse, if intelligently controlled, may be favorable to thrombosis of the bleeding ves-

sel. In cases of extreme collapse one may be justified in employing some diffusible stimulant like alcohol or ammonia. Even then strychnine in full doses, given hypodermically, is safer.

It must be remembered that in intestinal hemorrhage the cold tub-baths must be discontinued at once and replaced by cold to the abdomen, and cold sponging if temperature rises above 103° F. *Absolute* quiet is imperative.

Perforation.—As soon as the first suspicious symptoms of this catastrophe show themselves, all feeding should be immediately stopped, all forms of bath treatment discontinued, and absolute rest maintained—the patient must not raise his head or move at all if it is possible to prevent it. A full dose of morphine should be given and surgical aid should be called at once. The results of surgical intervention fully warrant it unless the condition of the patient is so extreme as clearly to preclude the permissibility of an operation.

Disorders of the Circulatory System may require treatment. Examinations of the heart and lungs should be made frequently, once or twice a day, and when the pulse shows undue weakness or the first sound of the heart becomes feeble, strychnine should be given every three or four hours in increasing doses, up to 1-20 grain if necessary. I am opposed to the use of alcohol as a stimulant in typhoid except in an emergency, and then only for temporary use. Alcohol generates no new energy, but enables a man to draw upon his reserve power so that if given continuously the patient's reserve power is used up and he is not so well able to cope with some serious complication or strain upon his vitality in the later period of the disease. Water properly applied is a powerful cardiac stimulant. Prof. Juettner fully describes the hydriatic measures necessary to stimulate the heart and circulation.

The drugs most valuable to overcome the *cardiac weakness* accompanying typhoid fever are strychnine, sparteine, strophanthin, caffeine and its valerianate, and camphor, the latter in the following form: camphor, 2; ether, 3; sterilized olive oil, 7. Of this one or two hypodermic syringefuls may be given every hour or two, or even more frequently if necessary.

Should the extremities become cold the application of bandages and hot bottles should be made.

The Affections of the Respiratory Organs may require therapeutic intervention. Excessive nosebleed may usually be controlled by the application of tampons not alone from the front but also from behind. If it is not excessive, douching or spraying the nose with adrenalin or other astringent solution may be sufficient.

Bronchitis is ordinarily controlled by hydriatic methods. If the cough is very annoying it may be checked by codeine or heroin. Dry-cupping the breast often affords great relief. If there is feeble circulation, frequent change of position and cardiac stimulation may serve to prevent pulmonary hypostasis and to relieve cough and other pulmonary symptoms.

Neuritis is sometimes troublesome but usually may be relieved by the administration of codeine and the local application of a liniment composed of menthol and chloral, of each 2 drams, and alcohol and camphor water, of each 2 ounces.

Bed-sores can almost certainly be avoided by thorough cleanliness and keeping the bed and skin dry with appropriate bath treatment, with the daily (twice at least) rubbing of the skin with alcohol, especially over those portions of the body subjected to pressure.

Water beds or air or water cushions are of the utmost value in typhoid cases, but they always should be covered with a sheet free from folds and of not too coarse texture. They should never be unduly filled—in general, only to such a degree as not to rise above the level of the remainder of the bed when the patient lies upon them.

If a bed-sore occurs it should be treated according to the rules of antisepsis.

Recrudescenses and Relapses.—The most important consideration under these circumstances is suitable nourishment and free stimulation. Alcohol is of more value here

than during the primary attack. As vigorous hydrotherapeutic measures as were employed primarily are not indicated—only the mildest measures should be employed. Quinine is highly recommended by many clinicians in the treatment of relapses.

Convalescence.—As soon as the patient has begun to take solid food, which should not be for several days after the temperature is normal, he may begin to sit up in bed. He should not be allowed to get out of bed until the fever has been wholly absent for fully ten days. Previous to this time he may be raised on pillows for fifteen or thirty minutes at a time; this should be done for several days, gradually lengthening the time, before an attempt is made to sit in a chair. He should never sit up long enough to become tired. As a rule it is wise to defer his sitting in a chair for at least two weeks after definite defervescence. Complications often require rest in bed for even longer periods.

As the patient becomes stronger he may be allowed to take a few steps about the room, gradually increasing the exercise until he can spend much of his time in the open air. A trip to the country or, better, to the mountains is a pleasant and profitable mode of recuperation. He should be fully instructed before departure, however, as to the danger of overexertion and, more particularly, as to that of overeating. How soon after convalescence has been completed, the usual activities may be resumed cannot be determined by a general rule, but must be decided according to the individual case. The nature of the attack that has been passed through, the character of the occupation, the constitution and other external social conditions play the decisive role in this connection.

Typhoid convalescents should be kept away from severe, particularly technical, reading as long as possible, while light, indifferent literature may be read to them. Visits also should be restricted during convalescence, and only such persons admitted as do not excite the patient and do not encourage him to participate actively in the entertainment. The heart must be especially watched in aged subjects. In persons over sixty the use of moderate doses of digitalin or strychnine may forestall serious cardiac weakness.

Loss of appetite, muscular weakness and anemia may call for porter or the various malt extracts or a little claret with meals, with the triple arsenates with nuclein after meals. Often it is five or six months before a patient wholly recovers his strength after an attack of typhoid fever.

Control of the case should be retained by the physician until the patient is free from any possible danger of relapse, in fact until he is completely restored to a normal condition.

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SEQUELS AND COMPLICATIONS OF TYPHOID FEVER

Were they based on my experience of the past twenty-five years, my views on the sequels and complications of typhoid fever would be as valueless as the Irishman's on snakes, and for the same reason. Since mastering the antiseptic treatment I have seen very little of these phases, and must consult my long past experience in this line, or that which has come to me by reading or in consultations. It must be kept in mind that the antiseptic method is essentially preventive in this respect rather than curative. The earlier the typhoid bowel is made empty and aseptic the more carefully it is kept so, the less likely are we to have complications and sequels.

But we do not always get our cases at the beginning, and nothing is more common than for some physician to treat his typhoid patient expectantly until wide-spread intestinal ulceration has occurred, the tissues have been saturated with fecal poisons until they are ready to break down at the slightest provocation, the vitality is at the lowest ebb, and then call upon us to demonstrate the miracles of the sulphocarbolates and active principles.

Early Delirium of the most active description rarely occurs; it demands full

sedative doses of veratrine. Low delirium with headache, muscle- and bone-ache, coma vigil, insomnia, subsultus, carphologia, and the whole range of gastrointestinal ailments are attributable to toxemia and to be treated by cutting off the toxic supplies and eliminating those already in the circulation. This supplies the fundamental principle for the treatment—smothering a symptom is not in accordance with modern scientific conceptions of the physician's duty.

When Hypostatic Congestion (with pneumonic consolidation perhaps) has occurred, the heart should be carefully toned up to its normal function with digitalin, the respiration stimulated by a sufficiency of strychnine, and the vitality of the imperiled pulmonary tissues enhanced by the use of sanguinarine. Frequent change of posture favors the nutrition of the lungs, and the use of stimulating liniments over the chest is of value. The exact dosage of these remedies can not be given as it varies with the need. I give a milligram of the water-soluble digitalin every half to one hour until the heart action meets my approval. The same is true as to strychnine; I give the arsenate, half a milligram, at similar intervals, until I feel that the patient has had *just enough*, then less frequently, to sustain this effect. Of sanguinarine a milligram is enough, given every one or two hours. Overdoses cause nausea.

The Heart Should Be Watched from the first. "Behind sthenia ever lurks asthenia," said Burggraeve, and the experienced clinician will detect the approaching weakness in time to guard against it, by elimination, careful nutrition, holding the fever down and the early—but not too early—use of digitalin, caffeine or strophanthin. Which? Digitalin as a rule; strophanthin if the arterial tension is high, with weak heart action; caffeine if the others are not given very closely together; also when the kidneys need stimulus or headache is troublesome.

Cardiac collapse is treated by the injection of camphor, ether or normal salt solution subcutaneously, or the latter into a vein. Years ago remarkable results were reported from injections (into a vein) of aqua ammonia, one to four Grams, diluted, but the remedy seems forgotten, The ice-bag over the heart is momentarily effective but should not be continued beyond the induction of reaction and fails if not followed up. The powerful reflex stimulation from swallowing local irritants—capsicum, ether, volatile oils—may be utilized.

Intestinal Ulceration is best treated by the empty, aseptic bowel, and the local stimulation of turpentine. This is antiseptic, relieves flatulence and stimulates healing. Slight or even severe hemorrhages are best controlled by a full hypodermic dose of atropine, a milligram, enough to dilate powerfully the cutaneous capillaries and impound the blood there in safety. But it will not control the hemorrhage from a large artery when opened by rapidly advancing ulceration; and I am frankly in favor of meeting the conditions by the only effective means, to open the abdomen and ligate the bleeding vessel. So also in perforation: Why wait, or refuse the only rational chance for life?

There is a condition known as the ataxic form, well described by J. C. Wilson. A notable symptom is dilation of the pupils. Perilous in the extreme, this is yet quite successfully treated by the comparatively feeble remedies comprised in the antispasmodic group. Musk, castor, asafetida, valerian, sumbul, and especially the valerianates of zinc, ammonium and caffeine display here a power for good that is inexplicable. Small and frequent doses is the rule—a centigram of either valerianate every half hour till effect. Passiflora should prove of value in these cases and for the insomnia that is strictly nervous in origin.

Mental Alterations.—It has been my fortune to meet several cases in which long-continued or even permanent mental alterations followed attacks of typhoid fever. In every case these patients had been treated expectantly and the course was severe and prolonged; in the most notable extending to three months. These seem to justify me in doubting the popular hypothesis that "fever is a friend."

Baptisin is believed by those most familiar with this remedy to exert an influence for good over intestinal tissues threatened with sphacelus, similar to that exerted over the tissues by sanguinarine. I have had too little personal experience here to warrant an opinion, but the evidence seems too unanimous to be disregarded.

In days of old a threatened or actual bedsore was successfully treated by placing a deer skin under the patient.

W. F. Waugh.

Chicago, Ill.

PHYSIOTHERAPEUTIC METHODS IN THE COMPLICATIONS OF TYPHOID FEVER

In the light of the experience gathered by Winternitz, and many others in the hydrotherapeutic treatment of typhoid fever, it is fair to state that severe and complicated cases nowadays are clinical curiosities.

In our last lesson we have considered the principles which underlie the modern practice in the management of the disease. It is a question of solving a twofold problem, to wit, to rid the system of the toxins of typhoid fever and then to enforce a systematic antipyretic regimen. The first problem is solved by knowing how to *keep clean externally, internally and eternally.* In the management of the second problem of treatment the knowledge of the function of the skin as the great excretory organ and thermic regulator of the system is of paramount importance.

The management of complications and grave symptoms can be best discussed under separate heads.

The Afebrile Condition.—Cases are sometimes encountered which present all the common signs of typhoid fever, except the most common and typical symptom, namely the characteristic temperature. The fever may be low and irregular. It may be absent for days, while in all other respects the disease seems to present the ordinary clinical picture. A low fever coupled with great prostration is a bad sign and it indicates a retention of toxic material in the lymphatics. Under the circumstances a long siege usually follows. Sometimes there is a sudden dissemination of poison through the system, tempestuous rise of temperature, delirium, coma and death.

The fatal result is due to nerve exhaustion (enervation) of the sympathetic (vasomotor) nerves and coincident paralysis of the contractile and erectile tissues in the blood-vessels and lymphatics in the skin. The careful observer is forewarned by the feel and appearance of the skin. If the latter is dry and cold and has a "dead" feel, we can take it for granted that "reaction" would be uncertain or absent. This means that the typical cold-water treatment would be ill advised. We must substitute a direct stimulant for the indirect, or secondary, agent. Warm or even hot applications are proper under these circumstances. These may be given in the form of immersions, douches, packs, as the case may be. Dry heat produced by the gas or gasolin flame, electric light, etc., and applied in a suitably constructed cylinder, is of great service in these cases. Cutaneous activity must be stimulated at all hazards. Massage (effleurage) or even rubbing with a coarse towel is of value. These efforts must be persisted in until the skin has been made functionally active. The thermometer under these circumstances is indispensable.

Severe Headache.—A cold application to the head is the most common and usually effective remedy. A hot-pack applied to the feet or to the legs up to the knees or hips will enhance the effect. Continuous gentle pressure applied to the temples often gives relief. Pressure by means of the hand applied to the nape of the neck or to the occipital region will lower blood pressure and often insure rest and even put the patient to sleep. A portable galvanic battery may be of great service in these cases. Apply a mild current (5 to 10 milliamperes) by means of two sponge-electrodes, the negative pole to the back of the neck, the positive to the right and then to the left temple. There must be no bungling in the technic. The application must be mild and soothing.

Mental Hebetude and Coma.—Symptoms on the part of the brain are due either to insufficient blood supply of the intra-

cranial cavity or to poisoning of the nerve-cells and -centers. In the former condition there is passive hyperemia of the brain, excess of venous blood, and poisoning by carbon dioxide. If the condition persists, then there is a tendency toward a low form of meningitis, distinctly hypostatic in character.

A condition of this kind calls for heroic stimulation of the skin all over the body by hydrotherapeutic measures (*cold*, if reaction is good, *hot*, if reaction is uncertain or entirely absent) and for powerful "derivation" to the lower extremities. If the brain symptoms are of the violent variety (delirium, etc.), there is present a toxin-deposit in the nerve-centers. In these cases hot immersions or the use of the dry-heat cylinder are indicated. The moment the skin becomes active, the irritability of the nervous system is lessened and usually completely allayed. Cold applications to the head are proper in most of these cases. Sometimes a warm application seems to have a better effect, usually if the skin of the face is clammy and livid.

Prostration.—The complete prostration sometimes seen in severe cases of typhoid fever should never be underrated, so far as its prognostic significance is concerned. Priessnitz feared this symptom more than continuous high fever and likened the prostration and the coincident slacking of all the parts of the organic machinery to "a watch gradually running down and eventually stopping altogether." His ambition was to "keep the horse a-going at all hazards," if need be, by violent stimulation. Alternate hot and cold immersions or douches, followed by severe rubbing, are indicated. Alternate cold and hot rectal injections answer a good purpose. Change the position of the patient often. Let him lie on the back or on the right side, but avoid the left side on account of the heart. Change of position is necessary to equalize the distribution of the blood-mass and prevent hypostases. The effect of thermic stimulation can be enhanced by faradization of the muscular system. Alternate contraction and relaxation of the muscles of the abdomen, the back or the legs will be found very useful. Avoid the head and thorax for obvious reasons. Faradization should never be violent.

Peritonitis.—The cold moist-pack applied to the abdomen is a splendid depletent. Its effect can be enhanced by a "derivating" application to the feet. If there is a good deal of intraabdominal pain, a nonreactive (*hot*) application may be preferable.

Intestinal Hemorrhage.—The depletent methods referred to under the head of "peritonitis" are indicated in cases of hemorrhage. If the hemorrhage is slight but continuous, indicating a small erosion and the tearing of a small artery, "derivation" to the skin of the entire body-surface sometimes stops the bleeding promptly and permanently by depleting the intestinal vessels and giving an opportunity for coagulation.

Congestion and Inflammation of the Lungs.—An acute pneumonia is a dangerous complication of typhoid fever, especially toward the end of the disease. It requires powerful "derivation" to the lower extremities to reduce the blood pressure in the lungs. If the case is complicated with great and increasing weakness, stimulation of and through the skin is necessary. (See "Prostration.") The continuous use of the ice-bag over the chest cannot be too strongly condemned.

If the attack is of the subacute variety and partakes more of the character of a congestion, the suggestions previously given for the prevention of hypostases hold good. In this connection it is worth while to remember that a *bed-sore* is primarily the product of pressure upon a part which is passively congested and, therefore, the seat of a hypostasis. The principles of prevention are the same as those previously given. Change of position of the patient, the use of a well-fitting air pillow or cushion and the alternate application of heat and cold constitute the prophylaxis of bed-sores.

Tympanites.—A simple and yet effective method is the introduction of a soft catheter in the rectum high up. An ice-bag applied to the abdomen is always a nuisance and sometimes a positive source of danger. A warm or even hot application is physiologically indicated and usually affords relief.

Gentle massage over the entire abdomen and *mild* faradization or vibration of the abdomen are splendid auxiliaries in experienced hands. In cases of tympanites it is always wise to reduce the quantity of food until relief is afforded.

Insomnia.—The loss of sleep is often an annoying accompaniment of typhoid fever. A continuous immersion in hot water, a complete cold moist-pack, an abdominal cold moist-pack, a hot-pack of the lower extremities will prove serviceable, depending on the requirements of the individual case which might call for mild or heroic measures, reactive or nonreactive applications. Suggestion of sleep in suitable cases is followed by relief in not a few instances.

Otto Juettner.

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HIGH TEMPERATURE

Dr. W. C. Post of Maquoketa, Ia., always has some practical things to say and some interesting cases to report. In answering the question, "What is the highest temperature ever observed by you in a case of fever? What was the condition—describing case?" He gives the following history of the case:

"Highest temperature observed: 109.8° F. Hysterical fever, presumably. Allie D——, a boy of 17, showed this temperature, combined with rapid respiration and pulse, but increase over normal rate of both *much* less than would be expected from the temperature recorded. Physical examination showed no discernible cause for the pyrexia. In the apparent absence of any physical cause sufficient to account for the pyrexia, I decided that it was due to a nervous disturbance and gave him six doses of sodium bromide (this was thirty years ago), each of 30 grains, to be taken hourly for two doses, then every two hours. Initial dose at 5 p. m. just after temperature of 109.8 degrees was recorded. At 7:30 p. m. temperature was 106°, circulation and respiration improving; at 9:30 p. m. temperature was 102°; at 11 p. m. the boy was awakened with difficulty, when temperature recorded was 99°. The bromide was ordered discontinued and uninterrupted sleep allowed. At 8 o'clock next morning, the temperature was 98° F.; condition apparently normal and he was hungry. Investigation disclosed a violent quarrel with his stepfather at about 2 in the afternoon, shortly after which his temperature began to rise, reaching the alarming point recorded."

Replying to the tenth question, "What remedies are most useful in regulating the circulation and thus modifying fever, and how should they be combined and in what cases given?" Dr. Post says:

"For the vasomotor spasm which closes the capillary vessels and thus prevents their filling with blood (this surface-blood-drainage being necessary in order to promote surface-heat-radiation) we have a sovereign remedy in aconitine. This not only acts as a vasodilator, but actually promotes perspiration, which, in turn, helps strongly the radiation of heat from the surface by furnishing fluid for evaporation from the skin. As this spasm is certainly correlated with vasomotor stasis in other areas, we see the need of a vasomotor tensor, and this is well supplied by digitalin. For the irregular action of the nervous system governing the function that we wish to regulate strychnine is indicated, especially if nerve reaction be weakened or blunted as in the condition called asthenia. For the sthenic cases where there is apparent overaction of the circulatory impulses and functions, we use veratrine, which relaxes vascular spasm, thus lessening the resistance to the motor function of the heart, and lessening strain upon it and conserving its strength.

"Veratrine is of great value also because it is a powerful stimulant of elimination by the skin, liver and kidneys, thereby sweeping away toxins. Aconitine, digitalin and strychnine may be combined for the asthenic case of fever, and veratrine, digitalin and strychnine for the sthenic cases."

INTESTINAL ANTISEPTICS AND CATHARTICS

Dr. Fremont E. Wood of Sonora, Mexico, makes some interesting comments on in-

testinal antisepsis and cathartics. He says:

"The underlying dominant idea of intestinal antisepsis is within us at all times and an important point has lately impressed itself on me in relation to their administration not until, say podophyllum, has accomplished catharsis. With a large class of us here, and trained attendants, it is impossible to place dependence on the proper application of the drugs left with the patient. Accordingly time is lost, valuable time, in not presenting the invaluable intestinal antisepsis immediately with a good round dose of the eliminant, and this I invariably do, and with the more confidence as I have nothing to support me in accrediting podophyllum with the tardy therapeutic action attributed to it by our popular writers. True, its (shall I say) peristaltic action may not become manifest for a given number of hours, but this undoubtedly is a result of a process begun a few moments after the drug has been swallowed, and I think bedside practice warrants improving the valuable times in a wide range of cases by the prompt administration of the intestinal antiseptics with the podophyllum as the expected eliminants."

HOW I TREAT TYPHOID DELIRIUM

In a Hibernian way of speaking, I treat typhoid delirium by prevention. This may sound silly but it is the stubbornest kind of a fact. If the most scrupulous attention is paid to the thorough preliminary cleaning out of the digestive canal by cholagogs (calomel, podophyllin or iridin) and salines, followed by liberal doses of reliable intestinal antiseptics and intelligent supervision of the patient's diet, the supervision to result in eliminating from the diet all articles which have a tendency to an unduly long stay in the digestive canal and which of themselves tend to fermentative and putrefactive change in the intestine, and an open and antiseptic bowel is maintained throughout the course of the attack, very little if any delirium will be present.

I am in the habit of ordering a daily colonic flush, especially in the first ten days of the attack, with a solution of zinc sulphocarbolate containing from one to three grains of the salt to the ounce of water, at the same time giving from sixty to ninety grains of triple sulphocarbolates (calcium, sodium and zinc) well diluted, throughout the twenty-four hours. This, with the free administration of water internally and the intelligent use of sponge-baths, will keep the bowels clean and the kidneys and skin functionating well, and will eliminate the poisoning of the nerve-centers by intestinal poisons circulating in the blood stream.

Should there be any delirium remaining after elimination (as outlined above) is attended to, or should any arise in spite of this preventive treatment, due to cerebral cell irritation from hyperemia, my main reliance is upon cicutine hydrobromide given to effect and maintained till the tendency to delirium is passed. If due to cerebral anemia, as it sometimes is, stimulation is resorted to and pushed to effect.

But I wish to reiterate that in the vast majority of cases thorough elimination and the maintenance of a practical intestinal antisepsis will almost certainly prevent the occurrence of delirium in typhoid.

Wm. C. Post.

Maquoketa, Iowa.

EXAMINATION QUESTIONS

1. How do you treat the delirium of typhoid fever?

2. How do you treat constipation in typhoid fever? how diarrhea?

3. Describe the treatment for intestinal hemorrhage.

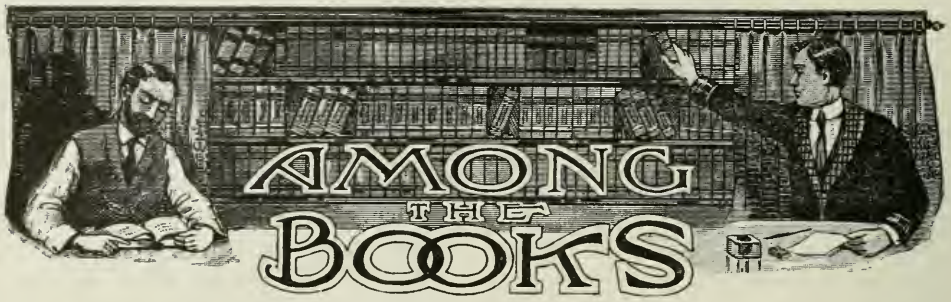
4. What is typhoid pneumonia? How should treatment be modified when it occurs?

5. How do you treat collapse during typhoid? What does it usually indicate?

6. Give the hydrotherapeutic treatment for mental hebetude or coma.

7. What is the significance of the prostration sometimes seen in typhoid fever? How may it be treated?

8. What would you do in case of perforation?



MAY'S "MANUAL OF THE DISEASES OF THE EYE"

Manual of the Diseases of the Eye. For Students and General Practitioners. By Charles H. May, D. D., New York. Sixth edition, revised, with 362 original illustrations, 22 plates with 62 colored figures. New York: William Wood & Company. 1909. Price, $2.00.

The paragraphs added in this edition are on transillumination, conjunctival tuberculin test, cerebral decompression and other points of recent development in ophthalmology. It is in the writer's heart to repeat what he wrote of this universally accepted volume in these columns last year, viz.:

This compact volume of 391 pages has proved a successful attempt to say just enough to most of those for whom it is written so as not to burden the learner nor to take up too much of the busy practician's time. These merits have been recognized by German, French, Italian, Spanish [and now Japan] physicians, into whose languages it has been translated. It has also been reprinted in Great Britain, since its first appearance in 1905. The book is not to make the larger ophthalmic works useless, but it will keep its own place for its clearness and succinctness of statement concerning the diseases that are met with every day.

COOKE'S "OBSTETRIC TECHNIC"

A Manual of Obstetric Technic as Applied to Private Practice, with a Chapter on Abortion, Premature Labor and Curetage. By Joseph Brown Cooke, M. D. Illustrated. Sixth edition, enlarged and fully revised. Philadelphia and London: J. B. Lippincott Company. 1908. Price, $1.50.

This little book from the pen of Dr. Cooke has a grand reason for its existence, even in its sixth edition, because in the eight years since its first appearance the evils that attend obstetrical practice outside of hospitals and in classes of society whose hygienic conditions of habitation leave very much to be desired have not been abolished to any extent. The only improvement that has taken place is that in places where there are hospitals the educated women are not now quite unwilling to go there to be confined. This will explain to the reader what the author means by the phrase in the title, "as applied to *private* practice."

STILL'S "DISEASES OF CHILDHOOD"

Common Disorders and Diseases of Childhood. By George Frederic Still, M. A., M. D. London and New York: Henry Frowde. 1909. Price, $5.50.

This book, some 700 pages, judiciously set in an economical and clean-faced 9-point type, is chockful of fine fresh reading matter. It is indeed refreshing to the memory and gratifying to our medical consciousness to have old truths modernly well restated and in addition new truths demonstratively and persuasively presented, and this is what the author of this book does. The book is the outcome, evidently, of a very large practice, both hospital and private, and of a vast reading of pediatric literature in many languages. Yet the

author does not claim for this his excellent production the quality of a "systematic textbook," hence the uncommon title of "common disorders."

We should be grateful that the author chose to write to suit his "bent," for as a result his book becomes so much the more instructive when consulted on some point puzzling a physician in his practice. Throughout all the chapters the author keeps in view the practical and clinical aspect of infantile and childhood diseases, their diagnosis and treatment. Altogether, and even in the face of our many excellent American books on pediatrics, this one by a British author will be a most valuable addition to the best of our public and private libraries, from which it could not easily be spared.

P. BLAKISTON'S SON & CO.'S PHYSICIAN'S VISITING LIST, 1910

This list contains rubrics for 25 Entries per day or week; Calender for 1910 and 1911; Table for calculating period of gestation; Table of signs for abbreviations in the list; Incompatibilities; Immediate Treatment of Poisoning; Weights and Measures, common and metric; Dose Table; Asphyxia and Apnea. It is in substantial leather binding with tuck and gilt edges. P. Blakiston's Son & Co., Philadelphia. Price $1.00.

BEATTIE AND DICKSON'S "SPECIAL PATHOLOGY"

A Text-Book of Special Pathology, for the Use of Students and Practitioners. By J. Martin Beattie, M. A., M. D., and W. E. Carnegie Dickson, M. D., B. Sc. With 191 illustrations and two colored plates from original preparations. Philadelphia: P. Blakiston's Son & Company. 1909. Price, $5.00.

In our review of the "Text-Book of General Pathology" by the same authors, in our June number, we had a good deal of good things to say about that book. The same mede of praise is due this excellent companion volume of some 900 pages including an exhaustive index. The subjects treated of cover diseases of the circulatory system, of the blood and blood-forming organs, the respiratory system, the digestive system, ductless glands, genitourinary system, nervous system, bones and joints, and of the muscles, and tendons.

Gynecological diseases, it will be seen, and those of the eye and ear, are omitted, the authors leaving these to the many excellent textbooks at the student's command. Some exceptions to these omissions are made in surgical pathology, but bacteriology is not touched. Altogether these two volumes form a fine recent addition by British authors to our medical literature.

FYFE'S "SPECIFIC DIAGNOSIS AND MEDICATION"

An important and most valuable work for the practising physician will appear in a few weeks from the Scudder Brothers Publishing House of Cincinnati.

STRAUSS' "METABOLISM IN GOUT"

Clinical Treatises on the Pathology and Therapy of Disorders of Metabolism and Nutrition. Part VIII, Gout. By Dr. H. Strauss. Berlin. Authorized American edition, translated under the direction of Nellis Barnes Foster, M. D. New York: E. B. Treat & Co., 1909. Price $1.00.

The publishers of this series of monographs in the English translation are doing a thankful service to the members of the profession who do not read German with ease. The treatises are practical, not only as to diagnosis but also as to treatment.

CAMAC'S "MEDICAL HISTORY"

Contribution to Medical History. Epoch-making contributions to medicine, surgery and allied sciences, being reprints of those communications which first conveyed epoch-making observations to the scientific world, together with biographical sketches of the observers. Collected by C. N. B. Camac, A. B., M. D., with portraits. Philadelphia

and London: W. B. Saunders Co., 1909. Price $4.00.

This is an excellent contribution to the comparatively scanty literature of medical history by American authors. The study of medical history is preeminently one that can be successfully (not in a commercial sense) carried on when done for its own sake only. There is not the remotest danger of a syndicate, combine, or trust being formed in medical history in this country, hence its scarcity in our climate, and hence our rejoicing at such a good token of an exception to the sterile rule as this book by Dr. Comac is.

Reading this book makes the physician feel the dignity and value of his profession, and for ourselves we felt the question in thought. What have all the motley crew of antimedicine fanatics accomplished for humanity compared even with the small record in this single book? The crops are reported as record-breaking for prospective posterity, and this should help placing this book in many a physician's library.

"THE OBSTETRIC YEAR BOOK"

The Practical Medicine Series, Vol. V. Obstetrics. Edited by Joseph B. DeLee, A. M., M. D., with the Collaboration of Herbert M. Stowe, M. D. Series 1909. The Year Book Publishers, Chicago. Price $1.25.

Dr. DeLee has given us in his always pleasing style a succinct account of what was done the past year in the physiology of pregnancy, in its diagnosis, in its pathology, in abortion, in obstetric hemorrhages, placenta prævia, placenta detachment, postpartum hemorrhage, extrauterine pregnancy, toxemia of pregnancy, vomiting, eclampsia, presentations, and anesthesia in labor.

Contrary to the prejudice of certain ex cathedra authorities, Dr. Lee gives an extended review of what people in Europe have to say on scopolamine-morphine anesthesia. We remember how many years it took the American public to use an automobile or to drive a wire nail, but they did it at last. Next to this is sacral anesthesia, of which Dr. DeLee wisely says: "We will wait for further returns." Then come management of labor, pathology of it, operations, and puerperal sepsis. The last part reviews the management of the puerperium, injuries of the newborn, and his pathology.

That such an amount of very useful knowledge of the present status of obstetrics should be included in these duodecimo pages, all for just $1.25, is really a wonder in book-making.

BUTLER'S "MATERIA MEDICA"

A Textbook of Materia Medica, Pharmacology and Therapeutics. By George F. Butler. Sixth edition, thoroughly revised and enlarged, and adapted to the eighth (1905) revision of the U. S. Pharmacopeia, Philadelphia and London: W. B. Saunders Co., 1908. Price $4.00.

This book has an honorable history of twelve years and of ten editions and reprints, the result of popularity and an assiduous study of the progress which the sciences involved in the subjects of materia medica and therapeutics have been making from time to time. The author, an honorable teacher who is not satisfied with his teaching until his pupils understand what is taught has given us in this last edition a new book in the ultimate sense of the word. It has all the qualities which made it popular in the past years and added to it all the increments of information gained in the past up to the last date of its publication.

HOLLAND'S "MEDICAL CHEMISTRY"

Holland's Medical Chemistry. A Textbook of Medical Chemistry and Toxicology. By James W. Holland, A. M., M. D. Fully illustrated. Second edition, revised and enlarged. Philadelphia and London: W. B. Saunders Co., 1908. Price $3.00 net.

In our review of the first edition of this excellent book, in THE CLINIC of June, 1905, we referred, among other good qualities of this book, to its perfect reliability as a reference book in its department on any point that we who have passed our

graduation decades ago desire to consult as to that point's standing or falling at the present progress of chemistry. This science has made wonderful strides during this interval of time, and Dr. Holland's book incorporates the results in this second edition, and we veterans no less than the young recruits of the profession can consult it with perfect confidence. The studious practician knows best the value of such a book and the pleasure it gives in finding in it just what he wants and fully stated up to date.

"COLLECTANEA JACOBI"

We are in receipt of eight beautiful volumes (containing each more than 450 pages) of the writings of Dr. A. Jacobi, edited by Dr. William J. Robinson. This we unhesitatingly affirm is the finest collection of medical and literary articles by any physician-author ever published in America.

This set of eight volumes of "Collectanea Jacobi" will be sold for Ten Dollars until January 1st, after which date the price will be increased to Fifteen Dollars.

They are cheap at three times the price. No doctor can afford to be without this invaluable collection of Dr. Jacobi's writings.

In the January number of The American Journal of Clinical Medicine there will be an exhaustive review of the work. Meanwhile take it from us that this set of books is a remarkable collection of the writings of one of America's most talented physicians and authors and we advise every doctor to take advantage of the publisher's liberal offer before January 1st. Address Dr. W. J. Robinson, 12 Mt. Morris Park, West, New York City.

NEUSSER'S "ANGINA PECTORIS"

Clinical Treatises on the Symptomatology and Diagnosis of Disorders of Respiration and Circulation. By Edmund Von Neusser, M. D., Vienna. Authorized translation by Andrew FacFarland, M. D. Part III. Angina Pectoris. New York: E. B. Treat & Co. 1909. Price $1.00.

This is a most welcome monograph on one of those not infrequent diseases with which the general practician has to deal, and in which no specialist as yet has been evolved. Neusser is not only a proficient teacher but a diligent practician and therapist as well.

TOD'S "DISEASES OF THE EAR"

Diseases of the Ear. By Hunter Tod, M. A., M. B. London and New York: Henry Frowde. Price $1.50.

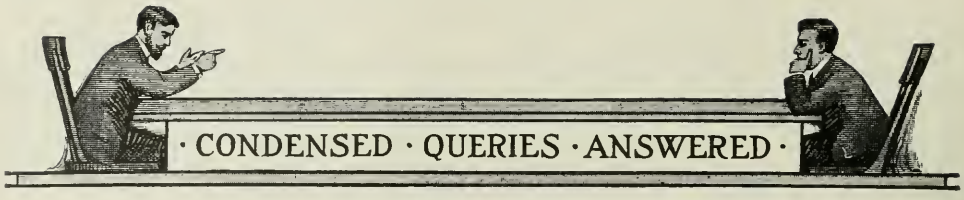
A valuable book, up to date, and always to the point. It is not written exclusively for either the specialist or the general practician and both will be profited by its perusal.

STARLING'S "FLUIDS OF THE BODY"

The Herter Lectures on the Fluids of the Body. By Ernest H. Starling, M. D., F. R. C. P., London. Chicago: W. T. Keener & Co. 1909. Price $2.00.

That that without which not even the first preadumbration of specific structure can exist—meaning the water of crystallization—that that substance should mediate equally life and death, a sweet-smelling savor and also a disgusting, repulsive, loathfulsome sense for sight and smell, this is one of those wonders which leads the theistically inclined person to accept the ideas of God and Devil, and causes much thought-trouble to the thinking materialist who rejects the idea of ether. It is therefore not strange that these thoughts should have crowded themselves forward in my mind when it became my duty to pen a notice of these beautiful and profound lectures, told so clearly and in simple scientific prose by Dr. Starling on "The Fluids of the Body."

These lectures are eight in number, their subjects being, respectively: The physical properties of protoplasm, the osmotic relationship of cells, the intake of fluid, the exchange of fluids in the body, the production of lymph, the absorption of the interstitial fluids, the output of fluid, the fluid balance of the body, and the causation of dropsy.



PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

ANSWERS TO QUERIES

ANSWER TO QUERY 5486.—The alkaloidal system is safe, certain and scientific. It is eminently correct and marks the transition from old-time therapeutic barbarism on the one side and recent-day therapeutic nihilism on the other to a true system of curing the sick.

And lest you grow vain and puffed up with overpraise let me say, Don't use 27 lines to reply to Query 5486. Simply tell your correspondent to get a glass urethral violet-ray electrode with proper machine and use it from three to six times and the patient will be cured. It will simply sterilize any urethra. And for any old stinking, bleeding, ulcerated rectum, with its itching pain, discomfort and prolapse, insert into the anus the violet-ray metal electrode and pass a strong current, finishing, if your patient will let you, by burning off the skin-tags with the cautery.

But these treatments cure so quickly in gleet and satisfy so well in piles that the medicine man must make a swift grab for his fee or they will be gone. I use the Seeley high-frequency coil once made in Los Angeles, but now in the East, somewhere. But there are others presumably just as good.

ALLEN CLARK.

Copper Creek, Ariz.

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ANSWER TO QUERY 5451.—I note in answer to your Query 5451, in the July issue, you advise castor oil as an ingredient of a prescription for tapeworm, also follow the treatment up with more castor oil if more purgative is necessary. Owing to teaching received, I have always avoided the use of castor oil after oleoresin of male fern. Cushney states that Poulsson advises that oily substances be avoided during the treatment as they dissolve the filicic acid and thus promote its absorption. It is impossible to estimate the importance of this fact since Boehm has discovered the other constituents, but it is certainly suggestive that in many cases of poisoning with male fern, castor oil has been given along with it or soon after. I mention this, wishing to learn if possible whether the above statement has been verified by the Editor in his practice or any of the readers of THE CLINIC.

E. H. FOUST.

Brooklyn, Mich.

—

[I have been giving castor oil in association with malefern for years; this combination has been employed by hundreds of our friends also, and I have yet to hearn of a single case of poisoning following as a result. This is another illustration of the fact that "theory" can often take lessons from experience.—ED.]

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ANSWER TO QUERY 5500.—If Dr. W. H. L., North Carolina (Query 5500), wishes more information than outlined in CLINICAL MEDICINE, pages 656 and 657, he should write to Treasury Department, Public Health and Marine Hospital Service, and ask for the monographs on "Pellagra" and "The Prevalence of Pellagra in the United States."

C. F. ROH.

Garrison, Neb.

QUERIES

QUERY 5514.—"Dosage of Hyoscyamine for Infants." W. P. S., Massachusetts, writes: "Your 'calmative for children' formula contains 1-500 grain of amorphous hyoscyamine. Is this not an exceedingly large dose for a child one year old, and have you received no bad reports from its use? It seems to me really an excessive dose."

The dose of 1-500 grain of hyoscyamine (amorphous) is not "exceedingly large" for a child one year old; at least the thousands of physicians who use this combination have never experienced trouble with it, and the originator of the formula experimented with various-sized doses for two or three years before deciding upon this amount of hyoscyamine as the most generally satisfactory. Of course there is no fixed "maximum" or "minimum" dosage for the positive therapeutist, the small dose, repeated at intervals to effect—*remedial or physiological*—being his only rule. If the physiological effect of the drug is noted before the remedial we have probably erred in our selection of the remedy or have omitted some essential therapeutic procedure.

The usual directions, as you will note, call for "one tablet dissolved in four to six teaspoonfuls of hot sweetened water, a teaspoonful every fifteen minutes to effect. Children over one year *may* take one tablet at a dose." As a rule the latter dose does not need to be repeated.

If the physician is at all uncertain of his patient's tolerance or the conditions are not such as to demand *immediate* relief, the solution should be prepared and the smaller doses given. Children, as a rule, are exceedingly tolerant of hyoscyamine. You will find it well worth while to make some clinical experiments with this formula. We know you will be delighted with the results.

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QUERY 5515.—"Calcium Sulphide in Malaria: Ankylosis." A. C. C., Oklahoma, is just getting interested in positive therapeutics and wants some advice. He says: (1) "In speaking of the use of the intestinal antiseptic you mention using 5 grains. I suppose this means the usual combination of the three sulphocarbolates as presented in commerce. Am I correct? (2) In your summary of the treatment of malaria you practically say that malaria can be evaded by saturation with calcium sulphide. Would a doctor be warranted in making such a statement in a district where malaria is found in almost its worst form? (3) I have under treatment a knee-joint that is partially ankylosed. Adhesions have been broken up once under a general anesthetic and motion was somewhat increased. I have worked on the joint with strong extension and flexion and massage for some six weeks, but have increased the movement very little. There is no pain except when pressure is made. Would it do to give hyoscine, morphine and cactin, and slightly increase the movement at intervals until all the adhesions are broken up?"

Physicians who have practised in malarial districts are the men who have proven the efficacy of calcium sulphide and we believe that up to the present time no patient *thoroughly saturated* with this drug has ever contracted malaria. If the parasite has entered the system, however, calcium sulphide will not prevent the occurrence of chills and fever though the severity of the attacks is markedly lessened.

The "intestinal antiseptic" of the market contains 5 grains of the combined sulphocarbolates of lime, zinc and soda. Children should usually receive the sulphocarbolates in solution and the mentholated, saccharinated combination therefore is preferable in pediatric practice.

We suggest that you give thiosinamin in your case of partial ankylosis. At the same time you may well push arsenic iodide (gr. 1-67, after each meal) and massage the knee three times weekly, having the patient apply several times daily compresses wrung out of hot solution of epsom salt, 1 ounce to the quart. Under partial anesthesia forced flexion may be made if the measures suggested prove ineffective.

Query 5516.—"The Treatment of Hydrocoele." J. G., Massachusetts, asks information in regard to our method of treating hydrocele. "I have," he states, "used, by injection, carbolic acid, tincture of iodine, besides other mixtures. Sometimes with success, at other times with no result at all. I have at the present time under treatment several patients who do not care for surgical interference, and before attempting this form of treatment I should like to know if there is anything that you have found successful."

As a matter of fact, hydrocele is so readily eradicated by very simple surgical procedures that we always recommend operation. Internal medication and local application have proven entirely useless despite the claims of some advertising "specialists."

The sac should be emptied (after careful disinfection) with a fine trocar. A mixture of equal parts of glycerin and liquefied carbolic acid is then injected and the sac well kneaded, the greater portion of the solution being removed after a few minutes. Personally, we consider this solution to be the most effective, although compound tincture of iodine (undiluted) injected and withdrawn after thorough kneading of the sac walls proves satisfactory also. In many instances thuja has given good results. The amount of fluid injected should correspond to about one-half the amount of fluid withdrawn from the sac. The 50 percent carbolic-acid solution should be injected very slowly and allowed to remain in the sac for not more than three minutes. Sometimes the patient complains of pain, faintness and nausea. These symptoms pass away in an hour or so.

The patient should always wear a suspensory after an injection. If pain is at all troublesome, he should rest in bed for a day or two; in fact, usually this is necessary after the first twenty-four or thirty-six hours. In rare instances it is desirable to give a dose of hyoscine-morphine-cactin or morphine alone, and apply hot compresses or the clay paste of the market to the scrotum.

Another method consists in tapping, washing out the sac with a 1 : 15 carbolic solution, inserting a drainage tube through the canula, which latter is then removed, leaving the tube in place. Antiseptic dressings are applied, the parts allowed to remain undisturbed for from five to six days. Dressing is then reapplied. At the end of ten days the tube is removed. Cure follows in many cases.

Internally hydrastin, collinsonin and eupurpurin, 1-3 grain each, should be given every three hours, and arsenic iodide, 1-67 grain, after meals. The bowels should be kept open, and it is desirable in nearly all cases to order a course of the arsenates of iron, quinine and strychnine or some similar tonic combination. These should be continued for at least two months.

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Query 5517.—"The Prickly Pear and Onion Juice as Remedies for Calculi."—M. N. W., Georgia, in a most interesting communication calls our attention to something that he "learned years ago, when among the Mexicans and Indians."

Our correspondent suffered from childhood with vesical calculi, and physicians said they would eventually kill him. Once while on the plains he had a bad attack. An Indian woman took some prickly-pear leaves (they grow all over the plains), cut out the heart and put a piece a little larger than one's finger in a glass of water, which in about twenty minutes formed a thick magma; this she had the patient drink. "In less than thirty minutes," our correspondent states, "my bladder was easily emptied and so great was the relief, I almost shouted. She then took one large red and one white onion and covered them in glowing coals till they were soft. Then she squeezed about a tablespoonful of the juice out of each and gave it to me to take. This she did for three mornings, then stopped three mornings, then the onion juice again three mornings, and so on until I had taken nine doses. After twenty-one days she repeated the course. From that day to this I have never had an attack, and that was twenty-five years ago. I have given this treatment to several persons since then, with the same result.

"Have you ever heard of onion juice being used in this way? During treatment my urine was milk-colored and thick, but passed off without any material pain. My idea is that the onion juice, prepared this way, performed a twofold service, stimulated the membranes, and dissolved the phosphates. I am quite sure from my observations that if used freely and in time onion juice will do much toward ridding the bladder of the concretions that form therein, while the prickly pear certainly relaxes the bladder very speedily, so that relief can be had almost instantly."

We note with interest your account of the use of prickly pear and onion juice in the treatment of "stone in the bladder." The leaf of the "prickly pear" (opuntia vulgaris) contains a mucilaginous substance, while onion juice acts, as you know, as a diuretic. Flaxseed tea or a preparation of slippery elm would, we believe, serve the same purpose as the "prickly pear," i. e., would act as demulcents. Onion juice unquestionably exerts a beneficial effect in some forms of cystitis and vesical calculus. The great difficulty heretofore has been to preserve onion juice in an effective form. The active principle of the onion is the pungent volatile oil; whether it contains any other active principle it is now impossible to say. It is possible that in certain sections and under peculiar conditions the prickly pear contains some definite active principle, but analyses so far have failed to reveal any glucoside, resin or alkaloid. Even tannin is absent, but sugar exists in large quantities. The mucilaginous decoction is said to cure diarrhea and exert a tonic influence upon the intestinal mucosa.

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QUERY 5518.—"Paraffin Injections in Hernia." C. H. H., Iowa, asks as to the relative value of paraffin injection for the relief of hernia, its dangers, technic of injection, etc. It would be impossible to discuss here this subject satisfactorily. We shall, at an early date, endeavor to present all the available data and outline the method of injection found most satisfactory. In the meantime procure the new book by Dr. Miller, "The Treatment of Hernia by the Injection of Paraffin."

Personally we are convinced that the method is of value in many inguinal hernias. The work needs to be done, however, by an expert, and the proper instruments must invariably be used. Disasters, failures, etc., may be attributed almost always to improper technic, use of inadequate instruments, injection of an insufficient amount of paraffin, or failure on the part of the operator to anchor properly the plug in the wall of the canal. The mere injection of a quantity of paraffin into the canal is worse than useless—it is dangerous.

However, the originator of the method has met with remarkable success. Many of the more successful operators are not revealing their exact technic, and each man has his own ideas regarding style of syringe, temperature of the paraffin, location of plugs, etc. One thing is certain: nothing but disaster can result from the insertion of a *soft* paraffin. The mass must be firm (and sterile) and forced by under-pressure from a screw-plunger, through a needle of large caliber, into the tisses forming the wall of the inguinal canal near the internal ring. A minute knowledge of the anatomy of the parts is absolutely essential, and not every doctor will care to do the operation.

—

QUERY 5519.—"What Caused the Fever?" R. B. S., Nebraska, reports an interesting case and desires a diagnosis and criticism of treatment:

"Boy, four years old, feeling well and playing at 7 p. m.; at 8 p. m. felt tired and sleepy, at 9 the mother called for me. I found the temperature 104.4° F. in axilla; child sleeping; no pain, no nausea or vomiting, no headache; bowels normal.

"At 7 o'clock Wednesday morning boy still asleep; can be aroused but will not stay awake. If asked a question he answers and is again asleep. Temperature 103° F.; pulse 180, regular, high tension; pupils contracted; still no complaint. At noon, still sleeping; temperature 101° F.; pulse 168; respiration rapid (22), pupils still small; tongue clean; can't arouse him long enough

to give medicine. At 7 p. m., pulse 158, temperature 100° F. Bowels moved; stool a light-yellow liquid, and child not noticing it. Urine passed for first time since 7 a. m.

"Thursday morning, temperature normal; pulse 89; still sleeping; not noticing anyone. Woke him, and he went to sleep talking.

"Friday, temperature normal; pulse 80; respiration deep and normal; is sleepy, but will rouse up for a few minutes at a time; bowels not acting; eats nothing, drinks water often. Saturday up and playing, feeling good but not hungry. I forgot to state that the first two days there was grinding of teeth and some slight convulsions of arms, legs and (sometimes) face.

"He was on this treatment throughout: veratrum viride and aconitine; intestinal antiseptic; frequent irrigation of bowels; ice-pack to head and back; tincture of opium, 1-minim doses every hour for six hours, then waited four hours and repeated. Please tell me if treatment was correct."

We are inclined to think that this boy suffers from worms. Have a specimen of feces and urine examined. Test reflexes, note condition of abdomen, and make some inquiries as to the diet twenty-four hours prior to the attack. Is it possible that the child could have obtained any narcotic poison? These transient febriculæ sometimes are extremely puzzling. We, ourselves, have noted many times, in out practice, symptoms similar to those you outline resulting from dietary indiscretions. Ptomain poisoning might be considered; still the absence of nausea, headache and diarrhea would cause us to exclude the idea. However, we must consider the possibility of heat-stroke. What was the temperature that day? Was the child exposed to the direct rays of the sun? All these are important points and must be disposed of satisfactorily in order to arrive at a diagnosis.

The administration of an opiate here was, we think, undesirable. The stomach and bowel should have been thoroughly emptied—the latter flushed and the skin sponged frequently with a cool saline solution. The aconitine, veratrine and sulphocarbolates were certainly indicated, but we should have "cleaned out" first.

—

Query 5520.—"Obstinate Constipation." E. E. R., Ohio, asks help in a case of constipation of many years' standing. The young lady is now twenty-two, and since childhood has used water flushings till she came under the doctor's care for autoinfection caused by a paralysis of the colon. Hot oil enemas and other radical means have been used. All kinds of salts and compound preparations have failed. Now she is receiving partial benefit from the use of maltine with cascara daily, but the objection to this preparation is that it fattens. Massage of bowels produces little or no benefit.

Such cases as a rule are exceedingly rebellious and success can be secured only by the most careful study of the patient and her body-chemistry. The constant use of enemata and colonic flushings is to be deprecated. Often dilation of the sphincter ani, proper dieting and exercise of the abdominal muscles will effect a cure. In this particular case enervation and colonic atony most likely exist to a marked degree. Continue the massage, dilate the sphincter, order whole-wheat bread or bran buns, plenty of cooked fruit and vegetables, with a sufficiency of rare red meat once a day. Vibration is useful and galvanism properly applied nearly always gives prompt results.

We suggest juglandin, papayotin and strychnine before meals, and small doses of sulphur with podophyllin and rhein after food. Papayotin may be added if digestion is imperfect. Dilute hydrochloric acid, 10 minims (well diluted), with each meal often proves serviceable. A very excellent combination, recently devised for use in such cases, consists of berberine hydrochloride, 0.07; juglandin, 0.01; physostigmine salicylate, 0.000125; strychnine sulphate, 0.0005; oleoresin of capsicum, 0.01. One such dose is given every four hours for a few days, then at 9 and 10 a. m. only.

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Query 5521.—"A Handbook on Nursing." D. H., Oklahoma, asks the name of

a book giving practical suggestions on nursing. A kind of nurse's pocket-compend, "Practical Points in Nursing," by Stoney (Lea Brothers, Philadelphia), is a useful work. "A Text-Book of Nursing," published by Appleton, and "A Hand-Book of Nursing," published by Lippincott, should suit your purpose. In these days of specializing there are any number of "handbooks" on obstetric nursing, surgical nursing, and so on.

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QUERY 5522.—"Copper Arsenite and Bismuth in Hyperchlorhydria." G. H., Texas, to a patient who complained of "burning in stomach and bowels," and who said she felt as if "raw inside" and vomited everything as soon as swallowed, gave the standard dose of copper arsenite, alternated with large doses of bismuth and homeopathic doses of calomel. He first administered the regular emetic dose of lobelia and considers this step as important. He says: "I can manage almost any case of bowel trouble with the help of copper arsenite. What do you think of this treatment?"

The emptying of the stomach in this case seems to have been thorough and frequent, hence we fail to see the necessity for an emetic: lobelia being decidedly depressant —and an irritant to the gastric mucosa— we should feel inclined to substitute emetine, a drug which gives excellent results in such cases.

We do not quite like the idea either of alternating copper arsenite and bismuth, but frankly acknowledge, the results obtained in practice often disprove the most elaborate theories. Did you examine the urine of this patient? and what was your diagnosis? Chronic gastric catarrh, hyperchlorhydria?

—

QUERY 5523.—"Dosage of Thymol in Hookworm Disease." L. G. L., Florida, wishes us to state the dose and method of administration of thymol in hookworm disease (uncinariasis) in a fourteen-year old boy.

The dose of thymol in hookworm disease is said by some authors to be 10 grains thrice daily for two days. As much as one hundred grains a day has been taken without causing toxic symptoms. Other individuals, however, have been poisoned by 70 grains in twenty-four hours. In uncinariasis small doses have been proven to be ineffective. We should not hesitate to give 10 grains at four-hour intervals; indeed, we should prefer to give the larger dose for two or three days, then, say, 2- to 5-grain doses several times daily for a prolonged period. The treatment of hookworm disease has been touched up in THE AMERICAN JOURNAL OF CLINICAL MEDICINE two or three times in the past. Betanaphthol (naphthol, B. P.) is another excellent remedy; 5 grains in capsule three times daily may well be alternated with or follow the thymol.

Suppose you try the following: Thymol, grs. 5, and three sulphocarbolates, grs. 10, every four hours for two days. Then flush the intestinal tract thoroughly with magnesium sulphate and saline enemata. Rest a week, examine the feces, and repeat treatment if ova are still found.

—

QUERY 5524.—"Injections of Kerosene." J. S. W., Alabama, desires to know whether in speaking of enemata of kerosene we refer to the undiluted oil? He explains that recently he lost a five-year old child from drinking a small quantity of kerosene and that he would be afraid to use the crude oil without further advice.

We will say in reply that one need not hesitate to inject kerosene (refined petroleum) into the intestine. We do so frequently, using from one to three pints at a time. You will be astonished at the results obtained by such a procedure, especially in cases of impaction of feces. Drinking and *injecting* kerosene into the rectal pouch are two very different things, although in Pennsylvania it is said the workers at the oil wells do not hesitate to consume large quantities of crude oil, believing it to be a sure remedy for worms, consumption, and numerous other things. After the oil has been voided the patient should wash out the bowel with a soap-suds enema.

Side-Stepping the Blues

Today we are inaugurating a new department. Whether it shall be long or short of life will depend entirely upon you, our readers. We are your servants in this matter, as in every other. If you like our venture into the gay and grave well enough to help out once in a while with your clever stories and your cleverer verse, or if you are too busy to do this yourself, give the good wife a "hunch" to send in something that will help to "banish the blues" or lead into pleasantly sentimental by-paths, the chances are that we shall be able to find a corner occasionally for more stuff of the same kind as that printed this month.

Let us begin with a poem on "Autumn Days," clipped from that bright little publication, *The Farm Journal.*

AUTUMN DAYS

Beside tall ricks of corn, the weary year
  Reclines in ease, and Autumn's generous hand
Has filled her lap with tributes; bright and clear
  The berries gleam like gems of Samarcand.

The predatory wasp, where purple globes
  Of haws swing pendulous, is sipping wine;
Or 'mid the grass with apple-scented robes,
  Still deeper delves the sly woodpecker's mine.

The filibustering crows and squirrels break
  The brooding calm above the fields of corn;
Old furrowed fields a deeper stillness take,
  When die the echoes of the quail's far horn.

The brier-clad crests reflect the ashen hues
  Of fires that burn their grasses to decay;
The oriflammes are drenched in nightly dews,
  And beauty fades with each succeeding day.

All things partake the silence; tangled skeins
  Of droning gnats forbear a louder cry;
Or where the dark form of the vulture stains,
  In circled flight, the autumn-painted sky.

It seems I see some ghost of that fair day,
  In golden raiment, wander from beneath
The drifted leaves, and down the distance stray,
  As Lear once did upon his cheerless heath.

IS BUTLER A PLAGIARIST?

Last month we printed Dr. George F. Butler's beautiful poem, "My Success." It will be found on page 1188. A few days after the journal was placed in the mails we received the following letter, which will be found interesting. Dr. Butler's reply, which we also print, completes an exceedingly entertaining correspondence. It follows:

COLUMBUS, OHIO, Nov. 10, 1909.

To the Editor:

The other day while waiting to see a physician I happened to glance over a number of your November issue and became interested in a poem entitled: "My Success," by George F. Butler—interested because of its similarity to the "Swan Song" of the ill-fated poet, Richard Realf, who committed suicide in San Francisco in 1878. Realf was an Englishman by birth, came over here in the fifties, cast his lot with John Brown, whose Provisional Secretary of State he was, though he was not with Brown at the time of his capture. At the breaking out of the war he enlisted and was finally discharged as Colonel of an Illinois Regiment, the 88th Infantry.

After the war he became a lecturer and writer, but finally becoming overwhelmed by domestic troubles committed suicide in San Francisco, Oct. 28, 1878.

Just before his suicide Col. Realf, then in an obscure hotel, called for ink and paper. The next morning he was found cold in death, and by his bedside a poem in sonnet form, that has been published and republished so many times that it is hard to understand how anyone could bring himself to plagiarize it. I don't know what particular George F. Butler this one is—or was, but I suspect it was that old drunken George Butler, nephew of Ben, a newspaper man, who died in Washington some time in the eighties. But here is the poem in question. It has no title.

"DE MORTUIS NIL NISI BONUM"

. . . . . When
  For me the end has come and I am dead,
And little voluble, chattering daws of men
  Peck at me curiously, let it then be said
By someone brave enough to speak the truth:
  "Here lies a great soul killed by cruel wrong.
Down all the balmy days of his fresh youth

Open Letter

DEAR DOCTOR:—

If you are not already familiar with our preparation **Resinol Ointment** we urge you to give it a trial in some one of your troublesome cases of skin affections. This Ointment possesses merit of which you may not be cognizant, and after its virtues are proven you will find it very serviceable on the numerous occasions when you need just such a reliable medicament.

Resinol is a product of improved and elegant pharmacy, and not to be considered in the same category as the old-time sticky and offensive ointments. Its qualities are such that there are few, if any, skin affections that are not benefited by its applications, and, if in your judgment, some special medication is indicated, it can readily be added to your prescription, for everything that is commonly prescribed in ointments can be incorporated with **Resinol** without fear of incompatibility. This **Ointment,** so decidedly bland, soothing and non-irritating, is of inestimable value in skin troubles where it is absolutely essential that irritation be subdued and its sedative and antipruritic action is manifested immediately.

Remember that skin troubles are aggravated and their cure retarded by the use of impure soaps. This can be avoided and satisfactory results obtained by prescribing **Resinol Soap** to be used in all cases. It is an absolutely neutral, non-irritating, and harmless antiseptic and germicidal soap. It is especially designed and adapted for bathing infants, and if used with the first bath, and regularly thereafter, skin troubles, chafing milk crust, etc., would seldom, or never make their appearance.

Resinol (Medicated) **Shaving Stick** contains the healing and antiseptic virtues that have made **Resinol Ointment** famous the world over. The lather that this soap produces is so thick, creamy, and soothing that the irritation, incident to close shaving, is entirely overcome.

Your request on a postal card addressed to us will bring you samples of these products, and hoping that you will give us an early opportunity to serve you, we are, Dear Doctor,

Yours very truly,

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BALTIMORE, MD.

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VALVULAR HEART TROUBLE
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Use Anasarcin in any obstinate case and note results.

Trial quantity and literature on request to physicians only.

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To his bleak desolate noon, with sword and song,
And speech that rushed up hotly from the heart,
He wrought for liberty, till his own wound
(He had been stabbed) concealed with painful art
Through wasting years, mastered him and he swooned,
And sank there where you see him lying now
With the word 'failure' written on his brow."

But say that he succeeded. If he missed
World's honors, and world's plaudits, and the wage
Of the world's deft lacqueys, still his lips were kissed
Daily by those high angels who assuage
The thirstings of the poets—for he was born unto singing—.
And a burthen lay
Mightily upon him, and he moaned because he could not rightly
Utter to the day
What God taught in the night. Sometimes, nathless,
Power fell upon him and bright tongues of flame;
And blessings reached him from poor souls in stress;
And benedictions from black pits of shame,
And little children's love, and old men's prayers,
And a great hand that led him unawares.

So he died rich. And if his eyes were blurred
With big films—silence! He is in his grave.
Greatly he suffered; greatly, too, he erred;
Yet broke his heart, trying to be brave.
Nor did he wait till "Freedom" had become
The chosen shibboleth of courtier's lips;
He smote for her when God himself seemed dumb
And all his arching skies were in eclipse.
He was aweary, but he fought his fight,
And stood for simple manhood and was joyed
To see the august broadening of the light
And new earths heaving heavenward from the void.
He loved his fellows and their love was sweet—
Plant daisies at his head and at his feet.

Poor Realf, he never came into his own in this life, and it seems a little tough that he should be robbed in his death. I am not writing this for publication—just for your own information. I am a layman and shall probably not see another number of your magazine; but if you are interested and will drop me a note some day I shall be glad to send you copies of some of Realf's other poems that show better his true poetic genius and the bigness of the man: "Symbolisms" and "Indirection," for instance, and "My Slain." I wish he were better known. Very truly yours,

FRED L. COWLES.

Columbus, O.

P. S.—I may have missed the exact form of this in places, but the words are substantially correct.

In spite of Mr. Cowles' little jab at our friend Butler, which is entirely undeserved, as Dr. Butler will show for himself, we like the spirit of this letter.

The writer is jealous for the reputation and loyal to the memory of his poet-friend.

Following is Dr. Butler's reply:

NOVEMBER 17, 1909

Mr. Fred L. Cowles, Columbus, Ohio.

MY DEAR SIR: Your letter of November 10 to the Editor of THE AMERICAN JOURNAL OF CLINICAL MEDICINE accusing me of plagiarizing Richard Realf's "Swan Song" has been referred to me.

I am very familiar with Realf's poems, having owned for many years a volume of them, and I have read each poem over and over many times. His poem "Written on the Night of His Suicide" especially appeals to me as does "A Soul's Despair," where he says, "All blessings which enrich the lives of men dissolve from me like phantoms," etc., and "Indirection," "Symbolisms," "Insufficiency," indeed, all of his productions, I am very fond of.

I doubt if America ever had a poet with a greater soul or a more poetic temperament than Realf had. His life was so embittered, his work so unappreciated, or at least it afforded him so little remuneration that I would not knowingly rob him of anything his due.

When I wrote "My Success," I can assure you that I had no thought of Realf, although I may have unconsciously imitated his style, being so thoroughly in sympathy with his misfortune.

In carefully re-reading his last poem and "My Success," I find the words "world's plaudits" and "lips kissed" occurring in both poems; othe wise I can see no similarity in the two poems, save that Realf, like myself, felt that he was rich in the love of a few loyal friends, and I think that no critic would accuse me of plagiarism other than a great admirer of Realf like yourself who would naturally resent what he might consider any imitation of his poems, however feeble or far-fetched it might be.

I have attempted to write some poetry myself, and this is the first time, to my knowledge, that I have been accused of lacking originality to say nothing of being a plagiarist.

I send you herewith, with my compliments, a gift book of mine—"Sonnets of the Heart," just published, which may in-

Physicians have a right to express their preference for the preparation of a certain manufacturer and to have this preference respected.

The { True or Natural } is Safe Reliable Efficient

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is the "MERRELL" quality

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Professor Winter, of Cornell University Medical College, urges the closest discrimination between artificial and natural Salicylic Acid and its Sodium Salt.

Addressing the Alumni of Bellevue Hospital on "Rheumatism" he says, "The antidote must be from nature; organic; vegetable."

The physicians of Lebanon Hospital, New York, after carefully conducted clinical observations, report that "the natural product does not depress the heart as much as the artificial product. It does not upset the stomach so much. It acts more rapidly"—adding the forceful statement that—"when Salicylic Acid or Sodium Salicylate **Natural** is specified, the artificial should not be dispensed as an equivalent."

Now, Doctor, the trouble lies in this fact—you specify "Natural", "True", from "Natural Oil". How do you know that you get what your prescription demands?

Adulteration of the natural with the synthetic is altogether too common—a most serious adulteration—because the most difficult to detect, and one which is not controlled by the "Food and Drugs Act."

For instance, a package of Salicylate of Sodium may be labelled "Natural", but, the manufacturer may have used "mixed" oil represented to him as pure—a very deceptive procedure because, the synthetic and the natural acid conform to the same re-actions; the same chemical tests, and differ only in their optical rotatory power and the form, size, and density of the crystals; without the use of the polariscope, therefore it must appear, that the retail druggist finds it impossible to detect such adulteration, and as the officials under the law cover chemical defects only—paying no attention to therapeutic results—the physician and druggist are equally powerless except through dependence upon the manufacturer.

Our urgent request, therefore, is that you examine the stock on the druggists' shelves. Price is a secondary consideration but quality is a *sine qua non*. The Merrell Company introduced the natural Salicylates. They are the largest and practically the only producers of an article of proved reliability in the world, and their experience and their exhaustive tests enable them to protect the medical profession and the patient by supplying a product so pure as to justify its administration even in large doses and for a long period of time without untoward effect.

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terest you. In these sonnets you may detect some resemblance to those of Mrs. Browning, Petrarch, and others. If you do I shall feel highly complimented, although I can assure you that my verses are as original as anything can be.

In writing sentimental poetry I necessarily must write of the grand passion, Love, so often dwelt upon by greater poets than myself, but I honestly affirm that I have never intentionally plagiarized the words, even though I may have unconsciously the ideas of anyone else, as did Longfellow, who gave plagiarism (especially poetical) a great impetus when he wrote Hiawatha, as well as the talented author Alfred de Musset. You recall, doubtless, that he used literally as his own productions parts of the letters of George Sand.

In a recently published book on George Sand by René Doumic you will find the following: *On constatait qu'une idee, un mot, une image de l'un, avait pris place dans l'oeuvre de l'autre,*" and he quotes one sentence from one of De Musset's novels which was lifted entirely (in all probability unconsciously) from one of the letters of George Sand to her "affinity," the gifted author.

There is a minor strain running through about everything I write, due, perhaps, partly to the character of the literature I most enjoy reading and partly perhaps to my unfortunate temperament. The following are samples:

Old friends, not true, fall away and leave me;
My heart is spent with lonely sacrifice
For them, who now in my old age deceive me;
And, bowed with care and cruel calumnies,
My feeble spirit sinks, my courage flies.

Hear me once more, ye whose unkind derision
Makes life a burden, thought a ceaseless pang!
Lo, how ye pass before my fading vision,
You perjured friends, that once my praises sang—
How sweetly in my ear those flatteries rang!

Yes, I am cold, and bitter in my sadness;
Ye killed my faith, ye chilled the genial glow
Of human sympathies, till in my madness
I turn from ardent love to hatred now,
And in still scorn my neck to fortune bow.

Yet when the heart hath unto pure affection
Its strength once plighted, something will remain
Of that great past, some holy recollection
Of gentle hours and bliss without a strain,
Which like a balm flows in the 'wildered brain.

My latest thought shall be of loving kindness:
I must live down my pain and learn to yield
To the fond will of Fate. For in my blindness
I felt not blessing. And my sorrow's shield
Shall be, forgiving calm through grief revealed.

You may say that there is a hint of Realf's "A Soul's Despair" in this, yet one could not justly accuse me of plagiarizing it.

You wonder if George F. Butler, author of the sonnet appearing in the November number of THE AMERICAN JOURNAL OF CLINICAL MEDICINE, is the drunken nephew of the late Ben Butler and who died in Washington some time in the eighties. No, I am not a nephew of Ben and am not dead, but dying slowly in all probability, and am not a drunkard—but drinking some occasionally. My friends can tell you that I am quite alive and respectably temperate. My father was a distant relative of Ben, so I am informed. That's the closest relationship that I can claim to the one great Butler.

I would like to meet you, and I forgive you for your injustice to me in your loyalty to Richard Realf, for if there ever was a man whose poems could truthfully bear the title "De Profundis Clamavi," Realf was that man. Very respectfully yours,

GEORGE F. BUTLER.

Wilmette, Ill.

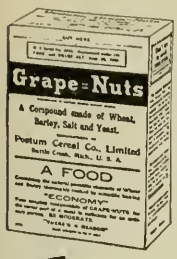
[It will interest readers of CLINICAL MEDICINE to know that Dr. Butler's beautiful "Sonnets of the Heart" is now ready. This is a beautiful thing, got out in booklet form, with hand-painted decorations on every page. The poetry is something to delight the heart of every woman—and 'most every man. If you want to provide *nice presents* for "the women folks" send for this—but get several copies. The price is $1.00.—ED.]

BETZ'S BONES

On the last cover page of the October number of CLINICAL MEDICINE our enterprising friend, Mr. Frank S. Betz, announced a record-breaking purchase of "bones," which were offered to such of us as have no bones of our own to rattle, or that will not rattle. The clever editorial writer of the Chicago *Record-Herald*, seeing this advertisement, manfully arose to the opportunity and helped to spread abroad the glad tidings. Rising to the full tide of inspiration, and thoughtfully printing his remarks as a "leader" on the editorial page, he said:

"BONES FROM BUDAPEST

"The medical profession has been notified through an advertisement in a medical jour-



Low Protein Diet

The frequency with which Intestinal auto-toxemia is met by the physician of modern training, and the fact that nitrogenous putrefaction is an important factor in this condition, makes it necessary to restrict the amount of protein ingested.

The moderately low protein content of grape-nuts, in association with other very important and highly desirable properties, makes this food of signal value in the the apeutic and dietary conduct of auto-intoxication from a truly scientific standpoint.

Grape-Nuts, made of whole-wheat and malted barley, contains from 12 to 15 percent protein in a soluble condition. It also contains on on an average of over 40 percent soluble carbohydrates—the starch being converted by the diastase into dextrin, maltose, dextrose, etc. These are quickly absorbed and rapidly produce energy while the phosphatic salts (grown in the grains) furnish the necessary elements for cell elaboration.

With good cream, grape-nuts forms a most appetizing and nourishing food—one whose protein is not only not in excess, but soluble and associated with other soluble and fully sterilized food elements.

The **"Clinical Record"** for the physician's bedside use, with name stamped in gold letters on cover, will be sent to any physician who has not already received a copy. Also prepaid samples of postum and grape-nuts for clinical purposes.

Postum Cereal Company, Ltd., Battle Creek, Mich., U. S. A.

nal that 'Betz has the World Beat on Bones.' Betz himself sent the good news along from Budapest.

"Betz, Bones, Budapest, Beat, delights the ear even when it appears on the printed page. The reader is conscious of a musical sound. It is all too harmonious to be called a big noise. The bigness may be admitted, but there is music in he air as of a full orchestra. If the bones rattle there is a pleasing suggestion of castanets. The voice of Betz, a voice of immense carrying power, is heard above the accompaniment:

"I am on my way home with a record-breaking purchase of bones. Got the entire exhibit of skeletons, skulls, spines and pelves put up for the medical congress here —the finest lot ever turned out. Have ordered 300 more skeletons and 500 spines.'

"Shout the glad tidings to the sawbones! Let them prepare to dance with the skeletons. For Betz not only has the world beat on bones, but he 'must and will sell them now regaidless of price.' He is ready to bust the bone trust. He is scientist, reformer and a poet of commerce all in one. He spiritual'zes the trade. Even the skeletons should share his enthusiasm. Symbols of death take on life as the song o' triumph proceeds.

"It is through such flashes of inspiration that we learn the possibilities of business. Finical notions are dispelled. Not only the price but everything goes, regardless. A noble profession is thus lifted out of the rut. It may grasp unprecedented opportunities if it will only follow the light that now leads and make the most of Betz, bones and business."

The brilliant writer might have added, that the most significant thing in all this splendid offering was of the 500 spines. All of us have bones, more or less, even though we may not be conscious of that important fact, and no insatiable desire for more, but many there be who are grievously deficient in the matter of backbone. Hence the appropriateness of the large offering, and especially at this favorable and propitious moment. While the demand for these from within the medical profession should be very large, we shall hope that there may be enough to supply at least the newspaper press, which has been notoriously deficient in this commodity, and generally blind to its own needs. In the *Record-Herald* editorial is there a subtle recognition of this need? Possibly Betz might——?

Anyhow, Doctor, if you can put *another* skeleton (or even a "backbone") to good use, it will pay you to write to Betz—or Clough!

MONEY-MAD

By "Oakley Selleck"

The world is mad, yes, money-mad,
There's little now that makes us glad
But just the clink of gold.
We slave for it from morn till night,
We're joyous, happy or in fright
By just the clink of gold.

All is for sale, you will observe,
Our daughters, they are not reserved.
He's rich, but "rotten," he's a catch,
His morals hell, we'll make the match.
She's young and sweet, he tough and bold,
It's sanctioned by the clink of gold.

We sacrifice all else for gold,
And sell our heart-beats, frozen cold,
And honor, oh, that name is old,
(and meaningless).
"Get money, money" is the cry.
You've failed in life, so go and die,
"Without the clink of gold."

Is there a life that follows this?
If so, your gold you'll surely miss,
For none of it you hold.
Why slave for that you must forsake,
And dwarf your soul, that's all you take,
All's lost, yes e en your gold.

—

We have received a nice lot of poetry from "Oakley Selleck," but unfortunately the author failed to attach his real name and address. Who is he? We should like to know.

THE EARLIER "ABBOT" AND HIS H-M-C

Only a few days ago, Dr. J. J. Conner died at his home in Pana, Illinois, and there passed that day into the great beyond one of those rare, broad souls such as bring comfort to the sick and the sorrowing and content and happiness to the well and the strong. Even as we pause in our regret over the death of this true and honest physician, recollection irresistibly carries us back to the days of good fellowship when Dr. Conner was the center of the laughter and fun in which he always delighted.

Although an earnest student and a man who realized the weight of his responsibilities, there was no subject in medicine too serious for Conner's humorous comment;

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General Editor, GUSTAVUS P. HEAD, M. D.

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When writing Advertisers, please mention The American Journal of Clinical Medicine

no brother practician too solemn or dignified for his witty banter.

One evening, only a year or two ago, a number of physicians, wending their way homeward from a medical society banquet, had gathered about Dr. Conner's chair in the lobby of a central Illinois hotel. Someone had remarked upon his successful employment of Abbott's H-M-C, when there spread over Dr. Conner's face that peculiar smile which indicated that something entirely Connersque was coming.

"I suppose you fellows know that W. C. Abbott manifested no originality in the preparation of H-M-C," Dr. Conner began. "The formula was familiar to Abbott's ancestors as far back as 1350 and they got it from a great person out of the East.

"What are you talking about? interrupted one of the younger physicians.

"I'm telling you about the first clinical uses of Abbott's H-M-C, replied Dr. Conner solemnly, "and that carries us back about 600 years, or somewhat prior to the recollection of the more youthful members of this society. About 1350, an Abbot, who took the greatest interest in the ladies of his parish, became very much infatuated with one woman who had a very jealous husband. He had recently received a remarkable drug from a great person out of the East which, if given to a man, would make him sleep for varying periods of time, according to the dose, and without doing him the least harm. So the Abbot dropped a compressed tablet of this new compound into the wine of the jealous husband and the effect was so complete that the Abbot had him buried, then disinterred, placed in a fake purgatory and then returned to his wife, a wiser and a kinder man. What happened during this clinical demonstration of several days I should decline to tell in mixed company. But I have always been convinced that the historic Abbot was an ancestor of W. C.'s, and that he got his formula for H-M-C from the family archives.

"Will you kindly tell me where you have raked up this illuminating history," inquired another of those young physicians who always delighted in Dr. Conner's wit.

"If you will devote yourself with serious purpose to Bocaccio's 'Decameron,'" replied the Doctor laughing, "you will find an authentic account of the Abbott's clinical investigations in the eighth novel of the third day of those ten days of chaste entertainment."

And of that group of dignified physicians, who bade farewell to Dr. Conner that night, perhaps for the last time, not one who had a dog-eared copy of the "Decameron" in a back shelf at home, went to bed without corroborating the doctor's declaration as to the use of Abbott's H-M-C in the fourteenth century.

GEO. THOMAS PALMER

Springfield, Ill.

DE MEDISUM MAN

By HENRY EDWARD WARNER

When de worl' look black an' de clouds hang low,
An' yo' feel lak yo' gwine t' die;
When yo' pulse beat fas' er yo' pulse beat slow,
An' dar's sickness in yo' eye—
Don't waste no time on a big fool man
Dat's givin' advice fo' yo' ills,
But hustle away as fas' as yo' can
Fo' de man wid de li'l roun' pills!

When yo' feel so sick dat yo' cyarn't stan' straight
An' de rheumatiz lands in yo' back—
When yo' feel lak de whole worl' movin' late,
An' yo' bones lak dey gwine t' crack—
Don't stop fo' t' listen t' no brass ban',
Thinkin' ragtime wil cure yo' ills,
But git on a run fo' de medisum man
Wid de grip full ob li'l roun' pills.

When yo' all done gone wid de fevah enough
So yo' burn lak yo' gwine burn up,
Don' yo' fool wid no charms an' sich lak stuff
An' don' play wid de bleedin' cup;
Dis worl' am a short an' fleetin' span,
An' hit's full ob all kinds ob ills—
W'en dey come yo' way, run as fas' as yo' can
Fo' de man wid de li'l roun' pills!

Den de man wid de pills come, an' den he put
He han' on yo' pulse, jess so—
An' he rub and he rub wid de rabbit foot
Twell de pain an' de ache all go!
So don' waste yo' time wid a fool black man
Dat's givin' advice fo' yo' ills,
But hustle away as fas' as yo' can
Fo' de man wid de li'l roun' pills!

"THE ARKANSAS DOCTOR"

We have recently received a beautiful photogravure picture reproducing David Bruce Conklin's painting, "The Arkansas Doctor." It is interesting to learn how the artist came to paint this. He tells the story himself as follows:

"During my sojourn in the Ozark region I chanced to meet the character shown in the picture now presented for your consideration. We met at sundown on the top of a

The Success of Listerine is based upon Merit

THE manufacturers of Listerine are proud of Listerine—because it has proved one of the most successful formulæ of modern pharmacy.

This measure of success has been largely due to the happy thought of securing a two-fold antiseptic effect in the one preparation, *i. e.*, the antiseptic effect of the ozoniferous oils and ethers, and that of the mild, non-irritating boric acid radical of Listerine.

Pharmacal elegance, strict uniformity in constituents and methods of manufacture, together with a certain superiority in the production of the most important volatile components, enable Listerine to easily excel all that legion of preparations said to be "something like Listerine."

"The Inhibitory Action of Listerine," a 208-page book, descriptive of the antiseptic, and indicating its utility in medical, surgical and dental practice, may be had upon application to the manufacturers, Lambert Pharmacal Company, Saint Louis, Missouri, but the best advertisement of Listerine is—

LISTERINE

thickly wooded mountain. It was August, which means "heat" in Arkansas. Nevertheless the old man was encased in a heavy, red flannel shirt, and the rest of his apparel was of corresponding weight. He was 'roastin' eggs,' so he informed me, and 'getting ready for supper.'

"'I'm a doctor,' he said, in reply to my query.

"'Horse doctor?' I ventured.

"'No. People,' he replied. 'Mountain people.'

"It developed during conversation that the doctor plied his profession throughout the rural districts, and with simple remedies endeavored to heal the sick. Money being scarce at the time, he would accept as fees, in many instances, chickens, eggs, butter, or a slat-ribbed horse, perhaps, and dispose of them at the next town as profitably as possible.

"The night before I met him he slept in the wilderness, between Harrison and Berryville, after staking out a string of seventeen bronchos, collected in the mountains. Horse-thieves relieved him of sixteen during the night, leaving him one old nag as a 'peacemaker.' It was this 'doctor' and his peacemaker that I have put upon canvas, of which copies are now sought by physicians for home and office decoration."

The picture may be obtained from the artist himself, 578 Jefferson Ave., Brooklyn, New York. Price, $2.50.

IN NEED OF HEROD

Portsmouth Square, the old Spanish plaza of the city centers a Chinese and Italian tenement population. By all the rules of probability, there should have been a struggle of the races on Portsmouth Square that morning. As a matter of fact, the Italians were stupefied and the Chinese accepted it as a matter of course. When the fire came their way, says Will Irwin in his stories of the San Francisco fire appearing in *Success Magazine*, the Chinese took their treasure chests and the Italians their bedding and trooped in stupefied silence into the square, where they camped out under guard of the regular army. On the afternoon of that first day, one, whom we will call Dr. Friend, passed the square, dragging his trunk. An acquaintance met him, and the following resulted:

"Hello, Dr. Friend," he called. A sergeant of regulars heard the greeting.

"Are you a doctor?" he asked.

"Yes."

"Well, there are babies being born over here in the crowd and we've looked everywhere for a doctor. Come over and get busy."

"I can't refuse to help—but I've got a family waiting for me!" protested the doctor.

"Get busy!" responded the sergeant, with a suggestive shift of his gun. In that day a soldier had only to raise his finger and the citizen obeyed.

Dr. Friend found three patients under a tent of blankets. Everything went nicely. By evening there were three new babies in Portsmouth Square. The doctor cut up an army blanket to wrap them. The sergeant halted an army ambulance which happened to be empty. They laid out the mothers—two of them Italian and the third a Pole—on the floor of the ambulance, tucked the babies safely on the shelves and drove to the temporary receiving hospital.

After the attendants had unloaded mothers and babies, the doctor and the ambulance started back for Portsmouth Square. An orderly ran up and stopped them.

"Doctor!" he called, "which baby goes with which mother?"

Dr. Friend's mouth flew open, and his hands dropped.

"I'll be d——d if I know!" he gasped.

A PAINLESS DEATH

Here's another from the same magazine: A teacher in the factory district of a New Jersey town had been giving the children earnest lectures upon the poisonousness of dirt.

One morning a little girl raised her hand excitedly, and pointed to a boy who seldom had clean hands.

"Teacher," she said, "look quick! Jimmie's committin' suicide! He's suckin' his thumb.".

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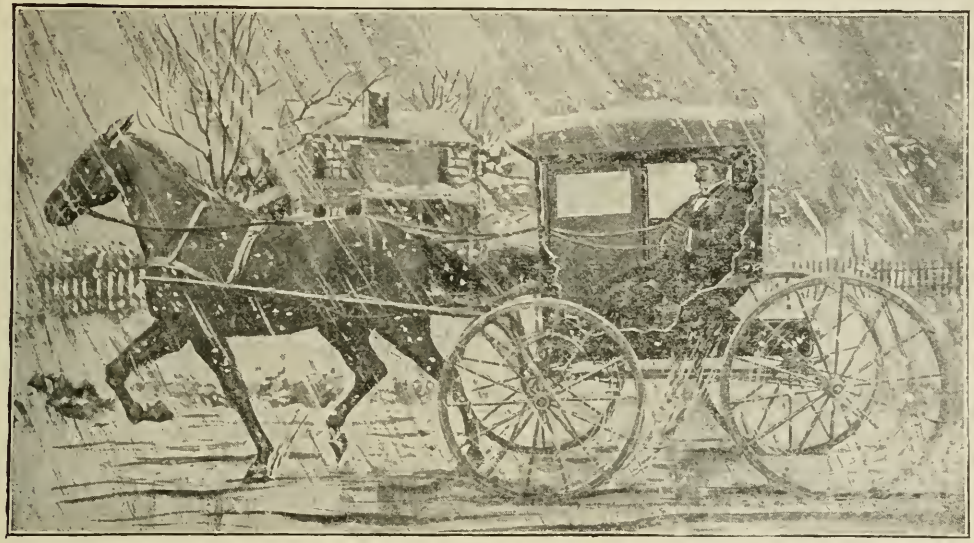

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When the weather is bad, no matter whether it catches you on the road or whether it is bad when you start out you can close up the open buggy and make it into a storm-proof, yet perfectly ventilated closed carriage, by three quick, simple, easy movements of one hand. There are no storm aprons or side curtains; no attachments of any kind; no clumsy contrivances in the top; no sliding, swinging or folding doors to stick, rattle and bang and get covered with mud. Your storm protection is always out of sight when not in use yet is always ready when needed, for **It is a Built-in-Part of the Cozy Cab Itself** and can't be forgotten and left behind when most required. Don't buy any vehicle before you inform yourself about the Cozy Cab.

No other vehicle made offers the physician so many advantages as the Cozy Cab, but we don't ask you to take our word for it; we ask you to

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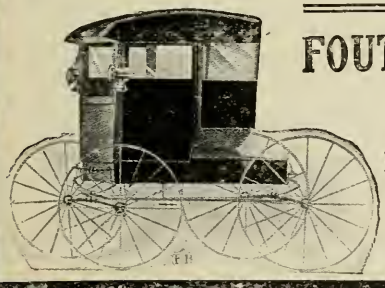
We want you to be satisfied with the Cozy Cab and, if not, to send it back to us. Write us today for Catalog, Prices, Terms, etc., and secure information. *Then* decide.



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The bugaboo of the long winter drive through rain, sleet and snow no longer troubles the doctor who uses the "Cozy Cab." It's well named, too. Just look at the illustration on page 27. Catalog, prices and terms will be sent on application to Fouts and Hunter Mfg. Co., Terre Haute, Ind. Kindly mention CLINICAL MEDICINE in writing.

EVERY doctor should read the booklet prepared for the medical profession by the H. W. Gossard Co., of Chicago, entitled "Corsets from a Surgical Standpoint." Copies will be sent gratis on mention of CLINICAL MEDICINE.

DOCTOR, have you seen a prospectus of the Pennsylvania Orthopædic Institute and School of Mechano-Therapy? If not you will do well to send for a copy. Address Max J. Walter, Superintendent, 1711 Green St., Philadelphia. Kindly mention CLINICAL MEDICINE in writing.

A BRAIN SAVER—A Time Saver—A Trouble Saver—This characterizes well the McCaskey Physician's and Surgeons' System of Office Accounting. It eliminates office drudgery and clerical work. Now is the time to investigate. Write for information to the McCaskey Register Co., Alliance, Ohio, mentioning this journal.

CIGARS for the Holidays and every day. See advertisements on pages 40 and 43 of this issue of CLINICAL MEDICINE. These special offers are too good to be overlooked.

DOCTOR, do you need a driving lamp for this winter? You can't do better than to order a Ham Improved "Diamond Cold Blast Driving Lamp" shown on page 45. Please mention CLINICAL MEDICINE when ordering.

LET us suggest a neat Christmas or New Year's gift for your friends—the Combination Bill Book and Purse illustrated on page 33. This useful device sells for $1.75 at the stores, but will be sent to any reader of CLINICAL MEDICINE with the name lettered in gold for One Dollar. Better send for one or more today, mentioning CLINICAL MEDICINE. Address: The Western Leather Mfg. Co., 44 Wabash Ave., Chicago.

"LAXOL" is a pure castor oil, "sweet as honey," without the usual nauseous taste but retaining all the valuable medicinal qualities. It is suited to all ages and is retained by the most delicate stomach. Samples and literature will be sent on request to the Laxol Co., 168 Duane St., New York City.

"HOW to Increase Your Office Practice" is the title of a comprehensive little booklet published by the Siebert-Welch Co. of Columbus, Ohio. It illustrates and describes that most up-to-date Insto Vacuum Vibratory and Air Apparatus. This device, although on the market but a short while, has had a most gratifying and successful sale. The results obtained through its use in the hands of the doctors promise well for a much larger introduction. We suggest, Doctor, that you send for a free copy of this booklet, mentioning CLINICAL MEDICINE when writing.

THE NEWEST MEDICAL BOOKS

Every reader of CLINICAL MEDICINE will read with interest the two-page announcement of P. Blakiston's Son & Co. in this issue of CLINICAL MEDICINE. See pages 50 and 51. Illustrated catalogs and circulars will be sent free on request and mention of this journal.

AURNESS' DUPLEX STETHOSCOPE AN IDEAL INSTRUMENT

It consists of a metal body, forming a pair of sound-localizing receivers, covered by vibrating discs, and having a common sound-exit. This body, to insure exact shape, is made under heavy hydraulic pressure from a metal composition found very dead to air vibration for the elimination of auto-adventitious sounds. The transmission plug has a lateral opening so placed, when adjusted to face center of disc in use, that the other receiver becomes entirely disconnected. Another function of the plug is to regulate the size of the sound-exit. Thus, if turned 45 degrees it reduces the sound-exit to 1-2, if 60 degrees to 1-3, etc., taking the place of Oertel's cumbersome attachment, when wanted in the examination of cardiac strength. Pure rubber tubings and hard rubber ear tips, specially designed, complete its construction.

POINTS OF SUPERIORITY

1. It provides one large and one small receiver, each so highly sensitive that complete disrobing is seldom required, while it admits of the most ready examination of the patient even in bed.
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3. It is non-roaring, either receiver serving as handle for the one in use. No disturbing sound from touch of hand and no metallic tube-ring as found in other stethoscopes.
4. It is so compact, you can carry it in your vest pocket.

The price, in fine leather purse by registered mail, is $3.50. Money back if not satisfied. American Rubber Company, Minneapolis, Minn.

A WOMAN WHO ADVERTISES

A Philadelphia paper says Dr. Katherine L. Storm is the most extensive individual medical advertiser in this country. Dr. Storm has devised and now manufactures the best binder and abdominal supporter ever made. It took the prize offered by the managers of the Woman's Hospital of Philadelphia for supporters, and as it is made to meet the demands of modern surgery, it has gained the favor of many of the best medical men in the East.

Dr. Storm deserves the patronage of physicians, because she has invented a very useful appliance, and she advertises and sells it in an ethical manner.

For full particulars write Dr. Katherine L. Storm, 1612 Diamond St., Philadelphia.—*Journal of the Minnesota State Medical Association and Northwestern Lancet.*

The Gossard Corset

A non-elastic abdominal support for surgical cases, floating kidney and its associated ptosis, for hernia, for use after laparotomy, as a maternity corset, for post-obstetrical cases.

THE Gossard CORSETS
"They Lace In Front"

It is so constructed that it is non-elastic and gives the proper support. It can not slip up or down and get out of place. There are no perineal straps. It supports the spine as well as the abdomen, which is desirable when patient is in a weakened condition.

The patient will wear the Gossard Corset and not discard it before the proper results are attained, because it gives her a symmetrical figure and the usual clothing can be worn over it. The fact that she can wear her clothing and make a good appearance induces a state of mind favorable to rapid recovery.

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Booklet, "Corsets from a Surgical Standpoint," mailed on request.

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℞ Strych. sulph. ..... gr. 1
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Tinct. cinchonæ comp. ..... fl. dr. 1
Syrupus acidi hydriodici (Hostelley's) ..... fl. drs. 3½
M. Sig. Teaspoonful before each meal, in water.

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and the various forms of indigestion caused by deficient digestive secretions and decreased gastro-intestinal motility are the chief indications for the use of

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In cases associated with anæmia Colden's Liquid Beef Tonic *with Iron* is indicated. Samples with literature mailed on request. Sold by druggists.

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A REVELATION IN RESULTS

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¶ In clinical use **Phospho-Ferrum** establishes the correctness of a growing belief that assimilable organic iron and manganese are capable of far greater possibilities than they have heretofore shown.

¶ **Phospho-Ferrum** is *Organic-Iron* and *Organic Manganese*—(in the form and proportion best suited to their physiological absorption)—in association with that admirable neurophosphoid, *Glycerophosphate of Lime,* and further supported and intensified by *Beef Proteids.*

¶ It has been amply established that organic blood-oxigenators and hematinics need the supporting and vitalizing influences of assimilable phosphorus to round out their therapy.

¶ All cell life is subservient to bioplasmic ascendency, and as bioplasm is a phosphoid structure an assimilable phosphoid compound should accompany hematinic therapy; the logic of this position is fast becoming a fixed principle.

¶ **Phospho-Ferrum** nourishes the cells beyond the immediate need of sustenance, animating the vital forces to a renewal of volition and active resistance, thus placing the organism safely behind the opsonic battlement.

Hostelley's Hypophosphites (Syr. or Sol.) **Syr. Acid Hydriodic—(Hostelley)**
Vin. Ol. Morrhuæ Comp.—(Hostelley)

W. H. HOSTELLEY AND COMPANY
MANUFACTURING CHEMISTS COLLINGDALE, PA. (NEAR PHILA.)

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RIGID STEEL

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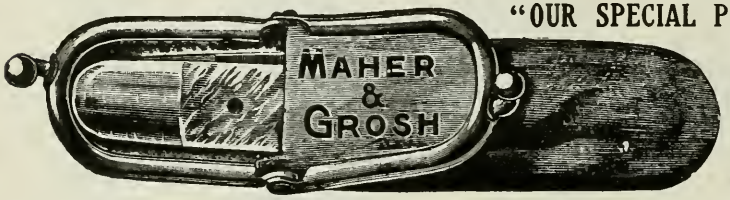
IMPORTANT ANNOUNCEMENT

Some months since the Electro Surgical Instrument Company, of Rochester, N. Y., were visited by a disastrous fire which completely destroyed their factory. They were soon, however, able to establish themselves in a modern fireproof building and with new machinery and increased facilities are now turning out even better instruments than before. The fact that they were able promptly to resume manufacturing under such favorable conditions is cause for congratulation both for themselves and their patrons inasmuch as the history of the use of the miniature electric light in diagnosis and treatment is closely interwoven with that of this company. They made the first electrically lighted urethroscope, the Koch, and they have just completed the latest, an operating and dilating urethroscopic set designed by Dr. Hugh H. Young of Baltimore. They made the first practicable cystoscope designed in this country and they have made the two latest, the E. S. I. Co. Combination and that of Dr. W. F. Braasch of Rochester, Minn. They were the pioneers in this line, and years of experience and the suggestions of many eminent physicians both at home and abroad have enabled them to bring their instruments to a state of perfection which renders them models of their kind and as now made by this company, properly designed and skilfully constructed, these have become indispensable for that accuracy of diagnosis and treatment which modern medicine demands. The vital part of such instruments is the small electric lamp and to every part of the manufacture of these especial care is devoted. All are of the "cold" variety, i. e., their temperature is but slightly above that of the body, they give a brilliant white light and have great endurance. The Electro Surgical Instrument Company make all kinds of electrically lighted instruments such as cystoscopes, urethroscopes, Jackson bronchoscopes, auriscopes, an illuminated eye spud, transilluminators, etc. They manufacture also all kinds of current controlling devices, including a socket current controller, a socket cautery transformer, and wall plates—and everything they make they make well.



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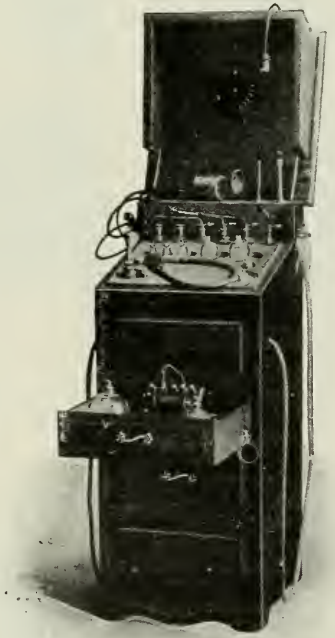

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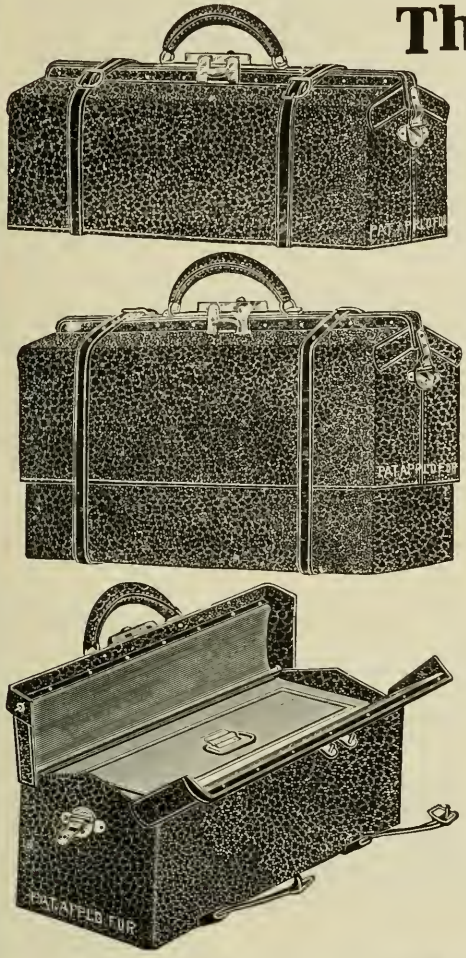

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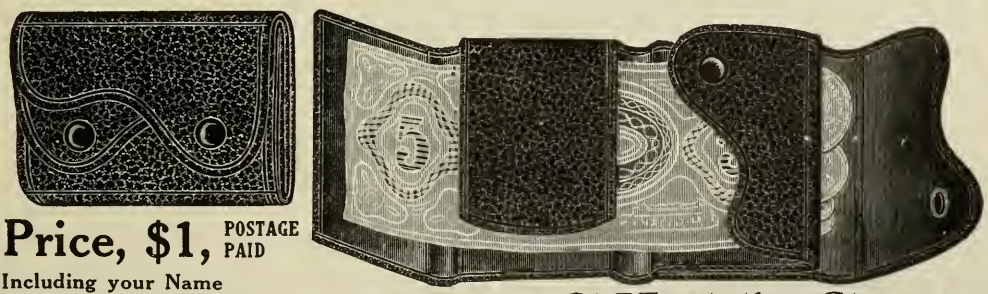

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In chronic skin diseases this compound should be given in small doses continued over a long period of time. It is useful in dry, scaly conditions of an atrophic type, such as dry seborrhea with falling of the hair, dry eczema, and in those skin eruptions of a scrofulous type. Should there appear any acute irritation or itching during its administration, the arsenic must be discontinued, and Idoneen alone substituted.

Idoneen with Arsenic will be found most serviceable in chronic nasal and bronchial catarrhs, especially if observed in patients of a scrofulous, tubercular or syphilitic type who take cold easily upon the slightest exposure and have hacking coughs. In these cases the combination may be used to good advantage in small doses during the entire winter season.

In certain asthmas, arsenic may well be combined with Idoneen.

In scrofulous children with enlarged glands, with poor appetiets and under-development, the combination will be found effective.

℞

Liquor potassii arsenitis.....fl. drs. 3
Idoneen, q. s. ad.....fl. ozs. 5
M. Sig. Five to 10 drops after each meal.

[OLD AGE]

The writer overheard an amusing chat on the street car the other day. Two physicians were talking shop and the question of the treatment of old age came up.

"Well, I wouldn't tell this to everybody," said one, "but I believe I have found the only solution of the trouble."

"Yes,?" inquiringly said the other.

"It's malt extract. Nothing more or less. You know as well as I do how little can be accomplished, in such cases. We can supply tone—and that's all. The breaking-down of the tissues can be neither prevented nor remedied. So I simply prescribe malt extract—taking care to stipulate Pabst Extract, because I know I can depend upon the quality of that brand."

If all physicians would practise this same frankness they would have much better results with this class of patients.

COLLARGOL IN CYSTITIS

Professor Jeanbrau (*Montpelier Medical*, May 31, 1908) says he had his attention called to the use of collargol in cystitis by Stoos and Tavel at the Berne Infant Hospital. His result in all cases was the same as from silver nitrate. But the great advantage of collargol over silver nitrate consists in its painlessness. In acute cystitis, the nitrate is agonizing; here collargol is as effective without causing pain. Collargol quickly inhibits the pain of cystitis.

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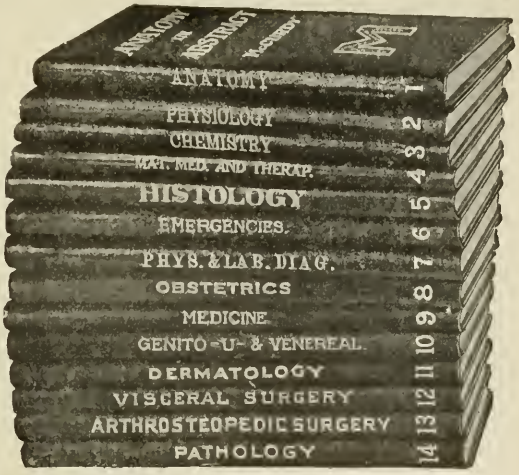

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(CURTIS)

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An organic iodide in aqueous solution containing one and one half grains of iodine to each fluid drachm
Guaranteed by The Idoneen Chemical Company under the pure food and drugs act. June 30th, 1906. serial No. 2204.
Ten drops to three or four teaspoonfuls may be administered three or four times daily, in a half glassful of milk, water or grape juice, as directed by the physician.
MANUFACTURED BY THE IDONEEN CHEMICAL CO. CLEVELAND, OHIO, U.S.A.

This new iodide possesses great therapeutic activity. It contains no alkalis or free iodine and is therefore non-irritating. It exhibits iodine in a most available form for internal administration and also for local application to the mucous membranes, as spray, gargle, douche or tampon, diluted with warm water or glycerin, as required.

The powerful resolutive and curative action of this chemical has already been proved, in the treatment of chronic enlargement of the liver, spleen, abdominal and thoracic glands, bronchial asthma, laryngitis, and incipient tuberculosis. It is especially active in tertiary lesions.

Do not administer Idoneen immediately after food, but between meal hours. Sample upon request.

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THIOCOL ROCHE

Of all remedies for tuberculosis, creosote was long regarded as the best. But its nauseous taste and persistent odor, added to the irritant, sometimes caustic, action upon the mucous membrane, seriously curtailed its employment and minimized its good effects. Guaiacol was open to the same objections.

The introduction of Thiocol Roche insured the full benefits of creosote or guaiacol medication without any of its handicaps. Thiocol is derived from guaiacol, contains 52 percent of that element, and while possessing the therapeutic advantages of its parent substance, excels it in being *absolutely odorless, almost tasteless, non-irritating, and soluble in water.* If clinical reports are of any value at all, then we must believe that Thiocol stands head and shoulders above all other known remedies for tuberculosis and other diseases of the air passages.

It is well worth the trouble for any physician to write the manufacturers—The Hoffmann-La Roche Chemical Works—for a sample of this excellent product.

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In the treatment of inflammatory infections of the nasal and naso-pharyngeal cavities, Sabalol Spray fulfills four very important indications: First, it allays irritation by covering the mucous membrane with a soothing, oily coating. Second, by virtue of its antiseptic action it prevents bacterial growth, and thus reduces the resulting inflammation. Third, it favorably modifies the character of the secretions and also acts as a deodorant. Fourth, it materially aids in restoring the relaxed mucous membrane to a healthy condition.

That these objects are fully realized is evidenced by the large number of specialists who are constantly using Sabalol Spray in their routine work. Particularly satisfactory results are obtained in the treatment of coryza, acute and chronic rhinitis (including ozena) and the various forms of hay fever, marked relief speedily following its application. Apart from its use in the nose, Sabalol Spray can be employed to great advantage in many affections of the lower portions of the respiratory tract as in laryngitis, bronchitis, and bronchorrhea.

Moreover, owing to its strong antiseptic influence, yet non-irritating character, this remedy has proven of great value as a prophylactic against acute catarrhal troubles.

This preparation was originated by T. C. Morgan Company, 102 John St., New York City, from whom samples and literature can be obtained on request.

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We are very anxious to secure a copy of Burggraeve's "New Manual of Dosimetric Medicine," translated by Prof. C. C. P. Silva, M. D., and W. T. Thackeray, M. D., and issued in 1888. If you have a copy let us know. Address, THE AMERICAN JOURNAL OF CLINICAL MEDICINE.

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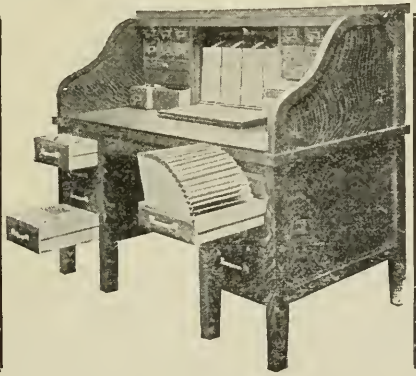

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AGENCIES IN ALL PRINCIPAL CITIES

TREATMENT OF CONSTIPATION*

By Franz Pfaff, M. D., Boston

* * * The large group of organic compounds used in the treatment of constipation act, so far as we know, mainly by producing peristalsis of the large intestines. I will only mention rhubarb, senna, cascara sagrada, aloes, gutti, elaterium, colocynth, jalap, and croton oil. It would take too long to describe the special merits of each of these; suffice it to say that some are powerful irritants, and have, therefore, to be used very cautiously; while others, like senna, cascara sagrada, have less irritant properties, and may be given with impunity for long periods.

From this very short description of the main characteristics of different medicinal agents, their indications for use may, nevertheless, be deduced. But before doing this, I may be permitted to draw your attention to another medicinal agent, which, in helping normal absorption in the small intestines and promoting intestinal peristalsis, may be used with success in the treatment of some cases. If ox-bile be given in suitable form and in sufficient quantity, constipation may be relieved even in very obstinate cases. When given in salol-coated pills to prevent absorption from the stomach and in large quantities, fifteen to thirty grains three times a day, before meals, the evacuation of the bowels may become entirely normal. Bile acts mainly on the contents of the small intestines, and the indications for its use are, therefore, limited. But we have seen that not enough stress has been given to the conditions of the contents of the small intestines in the treatment of constipation. In many cases the accumulation of fecal matter in the large intestines is thought to be entirely due to the imperfect peristalsis of this organ, and the treatment is directed to it, often with varying results, whereas a modification of the contents of the small intestine would prove curative.

*Read, by invitation, before the Massachusetts Medical Society June 8, 1897, and recommended for publication by the Society. (Reprint from the "Boston Medical and Surgical Journal," September 9, 1897.)

POTASSIUM IODIDE VS. BURNHAM'S SOLUBLE IODINE

Considering the chemistry of iodide of potassium as applied to internal medication, it is acknowledged that, aside from being an irritant and depressant therapeutically, potassium and other alkaline salts have properties that neutralize or destroy the full physiological action of iodine. In 12 grains of iodide of potash there is about 1-8 of a grain of iodine, in a form capable of being assimilated. The balance (11 7-8 grains) representing an irritating and depressing combination of iodine and potassium. The unnecessary tax on the digestive and eliminative organs is obvious. Nature throws out her protest in acne, coryza and digestive disturbances.

Careful and observing clinicians throughout the country have fully demonstrated the power and efficiency of Burnham's Soluble Iodine in all fields where the therapy of iodine is indicated.

No imitation has succeeded in producing the same satisfactory results, nor is any preparation or compound of iodine among the many now on the market effective in so *small* a dose. Burnham's Soluble Iodine possesses all the properties of Iodine in an enhanced degree and is available in many fields where the iodides would be useless.

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If you send your alcoholic patient to a sanitarium for treatment, you are turning over to someone else business that you ought to have; if you treat him yourself in the ordinary way, results will be unsatisfactory and he may go elsewhere. Secure his interested co-operation in

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and your results will be good and the patient and his friends will swear by you. To employ the OPPENHEIMER REMEDIES will be

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for they have been successfully applied by some of the best men in the profession. The Literary Digest said

"We have interviewed a number of prominent physicians in New York City who have had experience with the **Oppenheimer treatment,** and who stated that the results obtained through it have been satisfactory from a medical standpoint. These physicians assure us that the claims made by the **Oppenheimer institute** in favor of its treatment of alcoholism are essentially honest."
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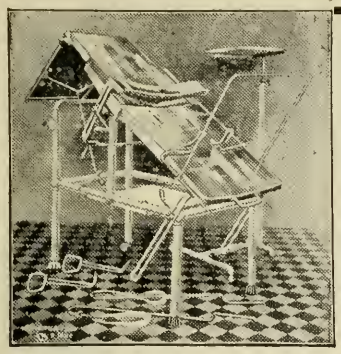

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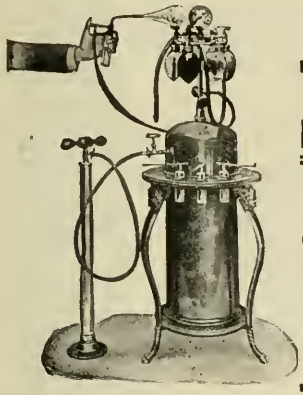

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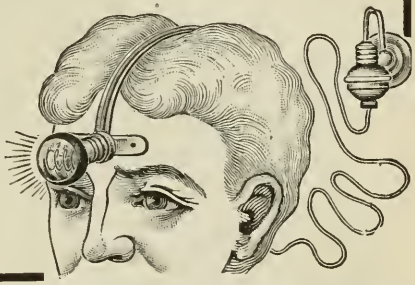

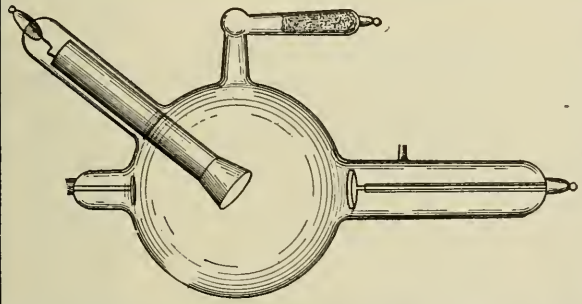

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The director of exhibits of the Alaska-Yukon-Pacific Exposition announces that the jury of awards has awarded the H. K. Mulford Company, of Philadelphia, the Grand Prize for Antitoxin and Special Syringe Container, the Grand Prizes on Tuberculins and Serial Dilutions of same, and the Gold Medal for Biological Products—the highest awards granted.

The H. K. Mulford Company are to be congratulated upon their triumph. The Grand Prize on Antitoxin and Special Container is a special honor, not only in recognizing the excellence of the Mulford antitoxin, but their constant efforts to improve and perfect the production of antitoxin, especially in increasing the potency of the sera, reducing the bulk for administration, and their perfection of the syringe package. The latest Mulford syringe undoubtedly represents the greatest improvement of this approved style of container.

The jury, in awarding the grand prizes on tuberculins of graduated potency, bacterins (bacterial vaccines) and vaccines, recognized the H. K. Mulford Company as the leading house engaged in the manufacture of these products.

The jury also recognized the importance of bacterins and of tuberculins of graduated potency as therapeutic agents by grouping them with vaccines employed for the prevention of smallpox. Antitoxins, bacterins and vaccines are three epoch-making products, representing the highest scientific advancement for the prevention and treatment of disease.

The method for graduating the dosage of tuberculin by serial dilutions has made tuberculin therapy comparatively safe in the hands of the general practitioner. When it is considered that the initial dose of this potent agent is 1-10,000 of a milligram—a portion almost inconceivably small—and that the increase in doses must be graded so carefully that it requires from six months to a year before the dose of one milligram can be given, the advantage is apparent of having a graded system of dosage so arranged that each dose can be accurately determined by increasing by two drops the dose of the serial dilution.

Every dose of Mulford's Antitoxin and Curative Sera is furnished in the Mulford Perfected Syringe, which possesses the following advantages:

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The metal plunger screws into the rubber plug, adjusting pressure and making action positive.

The metal finger-rest with rubber guard at top of syringe prevents any possibility of the syringe breaking or injuring the operator's hand.

The needle is attached with flexible rubber, permitting motion of patient without danger of tearing the skin.

The special adjustable rubber has great advantage over other packing, as it does not shred, absorb serum, or become pulpy. This syringe is simple and accurate, having no parts to get out of order.

The H. K. Mulford Company publish Working Bulletins on Biological Products. Copies will be mailed upon request to the Philadelphia office.

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is by all standards of comparison a 10c cigar. It will satisfy the most cranky smoker of imported brands. It is fully 5½ inches long, strictly hand-made, of choicest Havana tobacco—genuine Sumatra wrapper. It smokes freely and evenly—never chars down the side, but keeps burning cooly and fragrantly to the last toothhold.

The reason this cigar is sold at $2.40 instead of $5.00 per hundred is because I buy and sell for cash. I ask no credit, neither do I give it. I personally buy my tobacco direct from the grower in Cuba, and pay him at least five weeks before the tobacco reaches the U. S. Custom House. I buy for less and sell for less. The man who buys and sells on credit cannot compete with me. I believe in what Elbert Hubbard said in April, 1907, issue of the Philistine:

"A Credit Account is the most insidious form of borrowing money. When you don't pay the merchant at once for the goods you buy from him, you are borrowing money from him, and disguised in the price is much more than the legal rate of interest. Better to borrow the actual cash and know how much you have to pay for the accommodation; but it is better still to practice self-denial and go without the thing you want till you have the cash to pay for it."

"All the losses of the merchants who give credit are made good by the people who pay."

"The merchant who gives credit is not in business for his health any more than the pawnbroker is."

Among my 35 different brands I have an "in-between" smoke called "Old Fashioned Havana Smokers." I want you to be on smoking terms with them, because they are just the thing you want when you *don't* want a big cigar. They are Havana-filled—4 inches long—blunt at both ends—made the way the Cuban planter rolls tobacco for his own use—without a binder.

I'm so eager to have you try this smoke that I'll send you a sample box of 12 free along with an order for my Panatelas, because you'll buy them again.

Send me $2.40 for 100 Morton R. Edwin Panatelas. Smoke as many as you like—smoke them all if you want to, and if you then tell me that you didn't receive more than you expected, I'll return your money and we'll remain friends.

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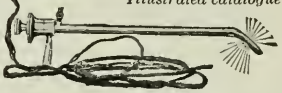

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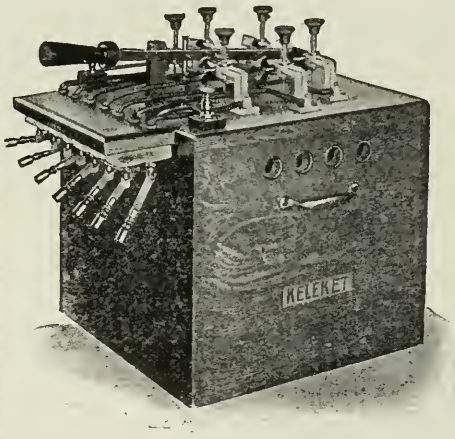

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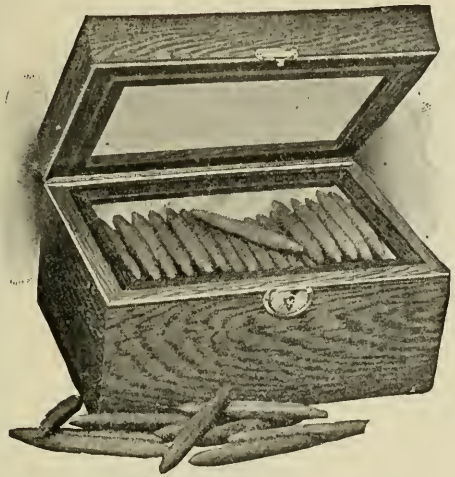

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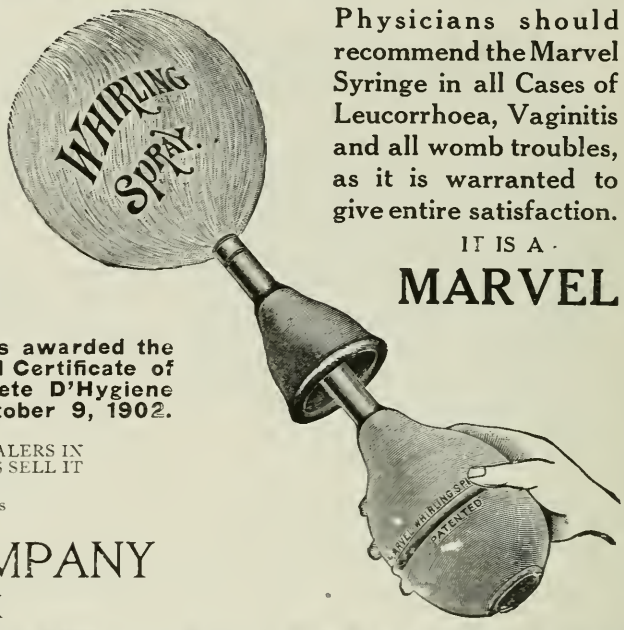

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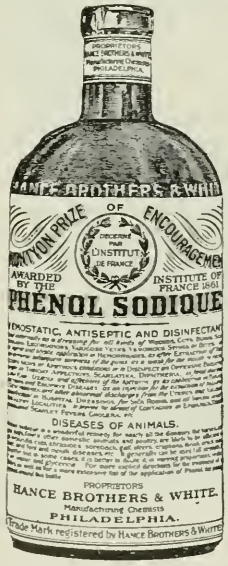

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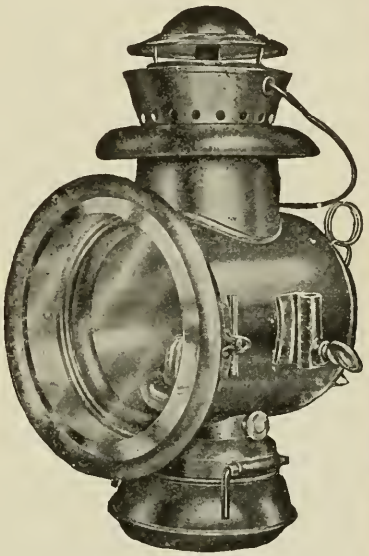

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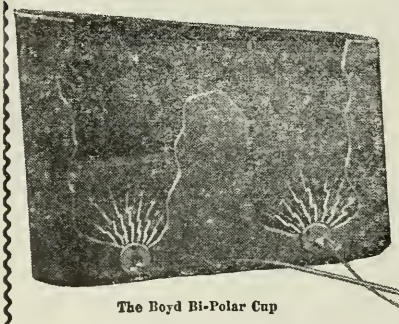

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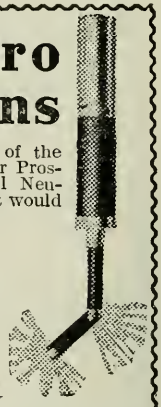

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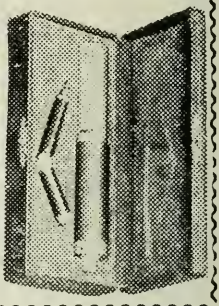

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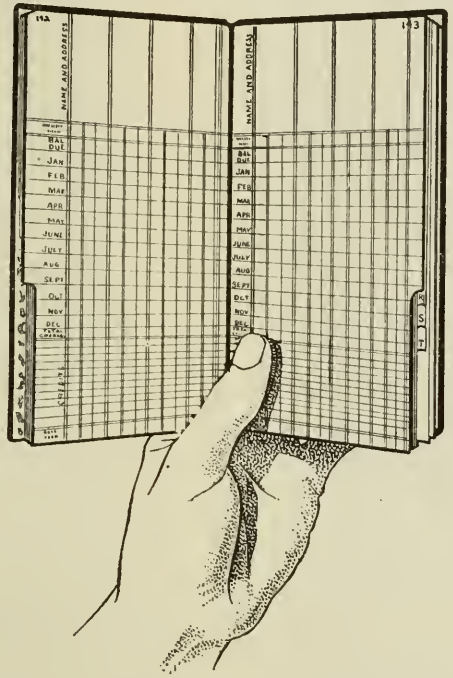

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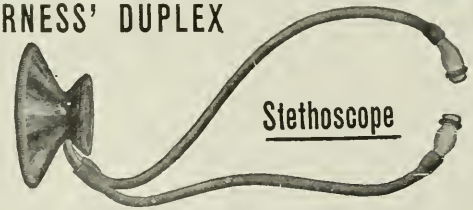

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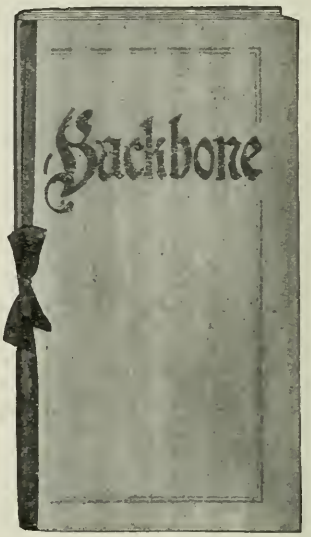

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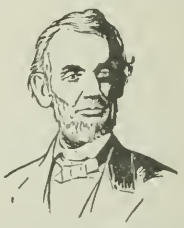

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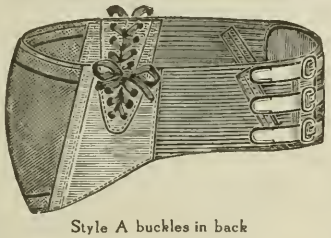

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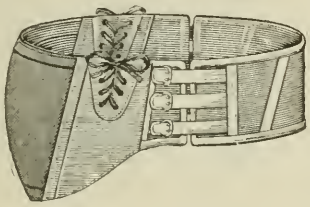

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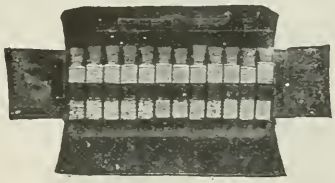

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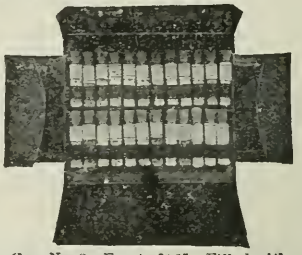
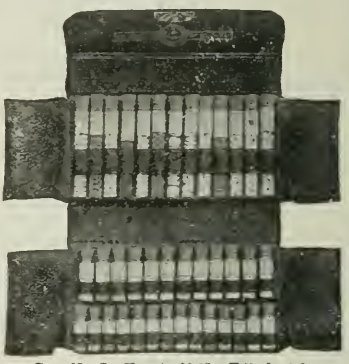


Case No. 2. Empty $1.15. Filled with your (or our regular selection) $3.00



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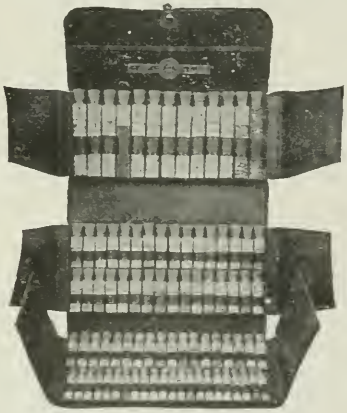

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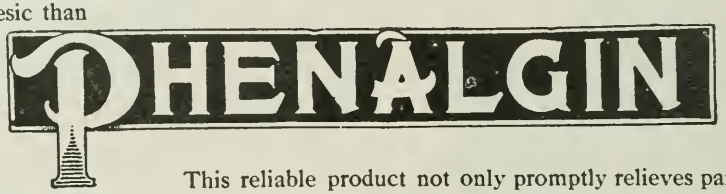

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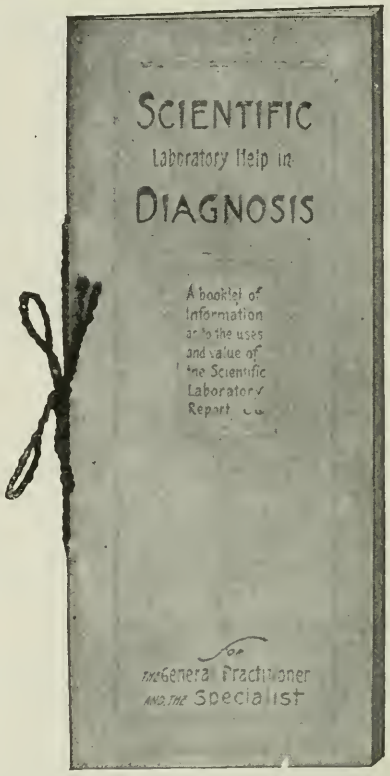
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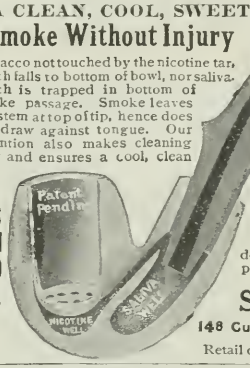

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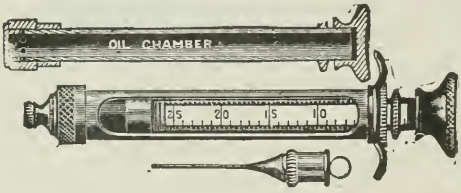

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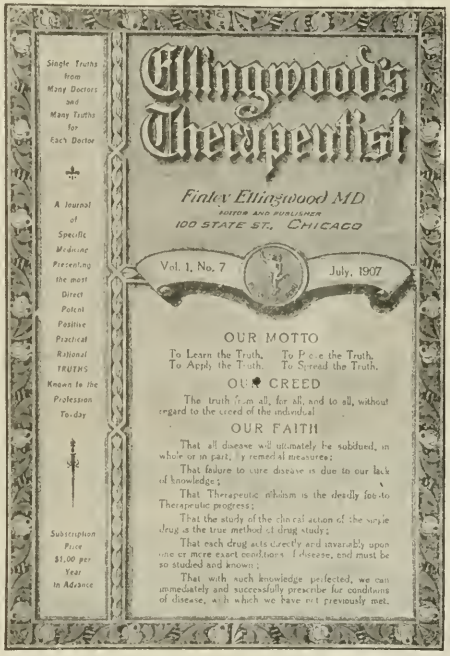
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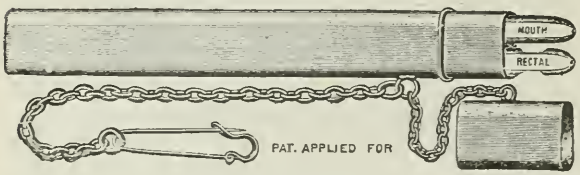

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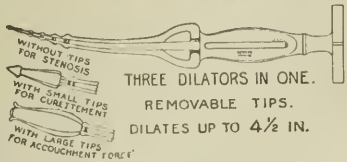

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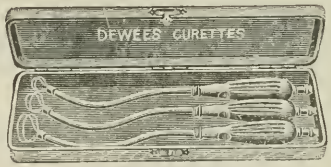

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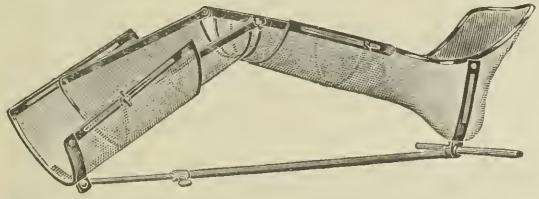

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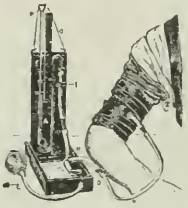

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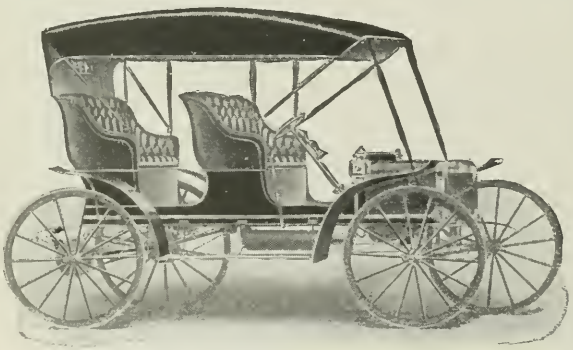

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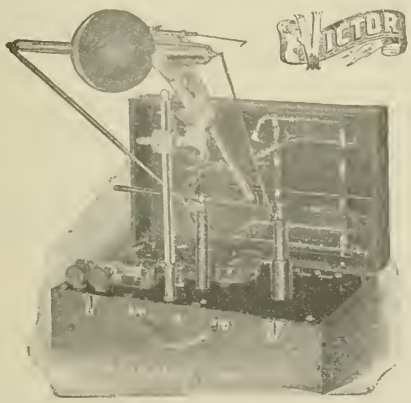

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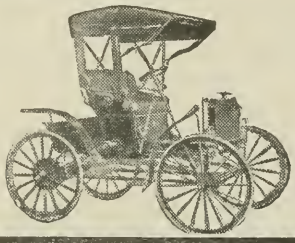

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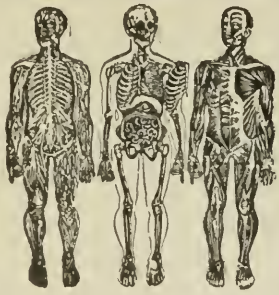

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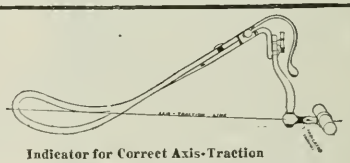

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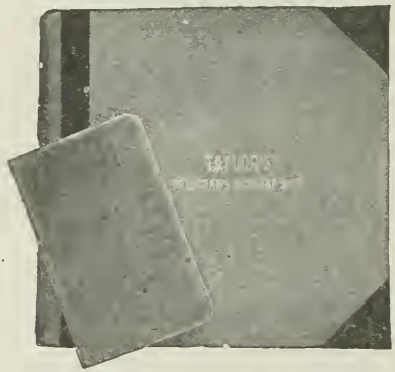

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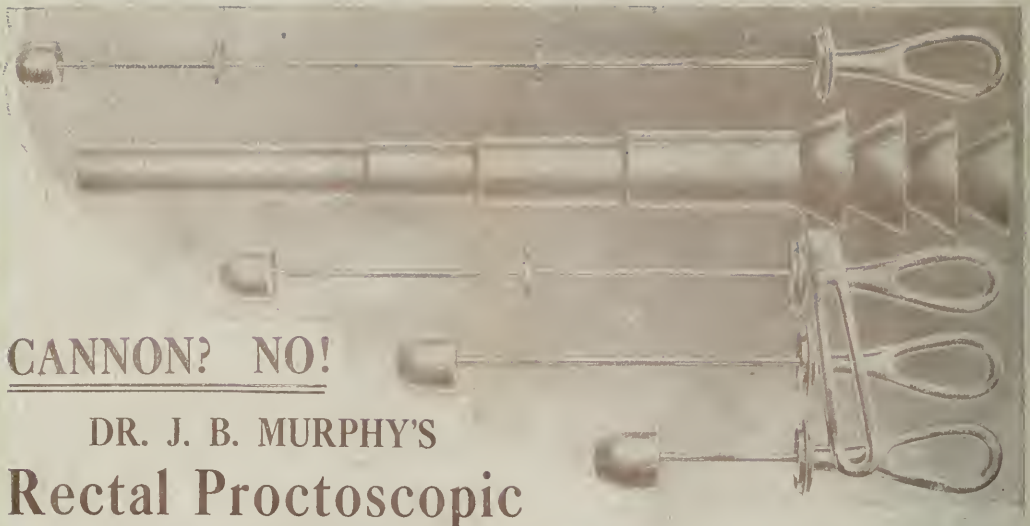

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